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ECONOMIC AND INDUSTRIAL AFFAIRS

No. 2049

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INTERNATIONAL AFFAIRS

THIRTY-TWO YEARS OF BULGARIAN-SOVIET TRADE REVIEWED

Sofia OTECHESTVEN FRONT in Bulgarian 18 Mar 80 pp 1,3

[Conversation with Valentin Aleksandrovich Dyakov, trade representative of the Soviet Union in Bulgaria: "Our Country Has Never Had a More Loyal Ally"]

[Text] "This treaty fully meets the vital interests of our people, reflecting its most profound aspirations. The implementation of this treaty will give our people even greater confidence in the justice of their cause and will double their creative efforts in the building of the Bulgarian People's Republic."

This historic statement was made by Georgi Dimitrov, 32 years ago, on 18 March 1948, at the Big Kremlin Palace, at the signing of the Friendship, Cooperation and Mutual Aid Treaty between the Bulgarian People's Republic and the Union of Soviet Socialist Republics.

The conclusion of this treaty was a historical event not only in relations between our two countries. It marked the beginning of a new stage in the development of Bulgaria and in the strengthening of its national independence and sovereignty. The treaty is the first equitable political document concluded by our country. It laid solid foundations for its development along the path of socialism and helped to establish Bulgaria in the international arena.

The 32 years which have passed since convincingly confirm the strength and vitality of the treaty. It became the starting point for the strengthening and intensification of Bulgarian-Soviet friendship and the development of Bulgarian-Soviet relations in all fields of life.

On this occasion, we chose the USSR Trade Mission as the spot for our article. Inside its new beautiful building we were hospitably welcomed by Valentin Aleksandrovich Dyakov, trade representative of the Soviet Union, who shared with us a few thoughts on the headlong development of economic relations between the two fraternal countries.

The chronicles of Bulgarian-Soviet economic and trade relations began precisely three years before the Friendship, Cooperation and Mutual Aid Treaty was concluded. On 14 March 1945, while World War II was still raging and the Soviet people were fighting for the liberation of the European nations from Hitlerite fascist oppression, the first trade agreement was concluded between the USSR and the Bulgarian People's Republic. This was the first postwar treaty concluded with a country belonging to the just-created comity.

In order to be more convincing, allow me to mention merely a few figures which clearly depict the development of our cooperation. Whereas in 1945 the USSR exported to Bulgaria 73,000 tons of petroleum and petroleum products, in 1950 such exports will total 13 million tons of petroleum and two million tons of petroleum products. In 1945 Bulgaria imported 16,000 tons of ferrous and nonferrous metals. This year such imports will exceed three million tons. At that time Bulgaria received from our country 2,000 tons of cotton. Current cotton imports total 40,000 tons.

Here is another interesting and significant fact: in 1945 Bulgaria received from the Soviet Union agricultural equipment totaling 10 combines and several dozen tractors. Today, on the basis of the cooperated deliveries system, we purchase from Bulgaria agricultural equipment worth 140 million rubles.

Whereas in 1945 trade between the two countries totaled 120.6 million rubles, today it has increased by a factor of 55. In other words, in one week we are trading the same amount of goods we traded in the entire year of 1946.

Mikhail Mikhaylovich Korolev, head of the economic department of the trade mission, joined in the conversation:

"Compared with 1948, our trade has increased by a factor of nearly 50. At that time it totaled 150 million rubles. This year it will reach 6.6 billion rubles."

The figures mentioned by Comrades Dyakov and Korolev are eloquent. They are a factual expression of the parameters of our friendship. Only a few days ago Petur Mladenov, member of the BCP Central Committee Politburo and Minister of Foreign Affairs of the Bulgarian People's Republic stated in an article in IZVESTIYA that, "cooperation with the Soviet Union became the main foreign political factor which enabled the Bulgarian state to assume leading positions in the building of mature socialism and in strengthening its international prestige."

I asked Comrade Dyakov to describe the way the structure of trade between our countries had changed over the years.

"Until 1960 Bulgaria was virtually net exporting machines and equipment. It was exporting agricultural raw materials and products only. Subsequently, particularly over the past 15 years, with the help of the Soviet Union a developed industry was created, to the point that Bulgaria is exporting to our country equipment worth one billion 560 million rubles and the USSR imports complete machines and equipment worth 800 million rubles. What better description could be given of the increased possibilities of the Bulgarian economy?"

"Allow me also to emphasize," Comrade Korolev added, "that all agricultural commodities exported by Bulgaria to the Soviet Union are processed, since this is a more effective method. The same applies to consumer goods such as clothing, knitwear, shoes, cosmetics, and pharmaceuticals.

"The USSR is a stable market for Bulgarian commodities, insuring employment and economic stability," Valentin Aleksandrovich went on to say. "Over 55 percent of Bulgaria's trade is with the Soviet Union. In 1979 it equaled the sum total of trade between 1956 and 1960 and 1961-1965 together. In the Seventh Five-Year Plan the level reached over the three preceding years will be outstripped and trade will total 28 billion rubles.

"Our trade and economic relations reciprocally supplement the national economies of the two countries. As trade develops the share of reciprocal deliveries of machines and equipment rises considerably; 38 percent of them are based on specialization and cooperation. A number of examples may be cited in this respect. Let me merely mention the fact that in the city of Toliatti, one out of two Zhiguli or Lada cars is equipped with parts produced in Bulgaria."

Gradually, our conversation turned to the present, which marks the implementation of the plans considered in the first treaty. In order to illustrate his thoughts, Comrade Dyakov used an interesting example which shows the scale of the changes in the trade between the two countries.

"If we consider the sum total of USSR supplies to Bulgaria as equaling 100, 70 percent of that would be raw materials and only 30 percent would be finished goods. Thus, for example, your country received 6.3 million tons of power industry and coking coal, 4.3 billion cubic meters of natural gas, fertilizers, cotton, cellulose, and paper.

"The principle of the process of further intensification of the development of economic relations, and the rapprochement between the economies of the two countries and the development and intensification of integration processes and cooperated deliveries has been included in the general plan for specialization and cooperation in the field of material production adopted by Bulgaria and the Soviet Union, which will run until 1990. This plan

was formulated with the participation and direct guidance of our party and state leaders, Comrades Leonid Brezhnev and Todor Zhivkov."

Economic cooperation and integration between Bulgaria and the Soviet Union, this powerful booster in the development of our country as a modern industrial-agrarian state, has faced the development of Bulgarian-Soviet relations with new strict requirements.

In this connection, and with a view to the further all-round rapprochement between our two countries, on 12 May 1967 a new Friendship, Cooperation, and Mutual Aid Treaty was signed by Comrades Todor Zhivkov and Leonid Brezhnev.

This treaty became the logical extension of the 1948 treaty and of the further blossoming and enrichment of its ideals and principles.

In conclusion, my collocutors cited yet another example which, in my view, eloquently shows the growth and development of our relations. Whereas in 1945 freight hauled from the Soviet Union to Bulgaria totaled 210,000 tons, while freight in the opposite direction totaled 15,000 tons, today it has reached 35 million tons. In terms of freight cars, the length of such a train would be 32 kilometers.

Thirty-two years are a sufficient period of time to be used as a convincing proof of the lasting ties and feelings which link our two fraternal peoples led by consistent communist parties marching shoulder to shoulder under the pure victorious Marxist-Leninist banner to the bright horizons of socialism and communism.

Leaving Moscow after the signing of the Friendship, Cooperation and Mutual Aid Treaty, 32 years ago, Georgi Dimitrov, our immortal leader and teacher, said the following in his speech at the airport:

"I know the Bulgarian people well and I can assure the Soviet brothers that they will remain their friend loyal to the end, whatever may happen in the future. The Bulgarian people will never betray their elder brother-liberator."

Thirty-two years later, expressing the thoughts and feelings stemming deep from the hearts of all Bulgarian citizens, in his speech at the National Conference of the Fatherland Front, Comrade Todor Zhivkov said:

"Our country has never had a more loyal, more selfless, more sincere and more staunch ally than the Soviet Union; it has never been so free, so independent, and so confident of its present and future...."

5003

CSO: 2200

BULGARIA

DEVELOPMENTS IN SUGAR BEET TECHNOLOGY PROMISE GOOD CROP

Sofia KOOPERATIVNO SELO in Bulgarian 23 Aug 80 p 1

[Article by Nikola Kutrev, director of Sugar Beet Production of the Bulgarian Sugar PAO [Industrial-Agrarian Trust]: "Using Our Experience"]

[Text] We are on the eve of one of the most difficult agricultural campaigns--the sugar beet harvest. This year the APK [Agroindustrial Complexes] and the PAK [Industrial-Agrarian Complexes] devoted a great deal of effort to prepare the soil and plant and raise the crop. A major step forward was taken in the application of the scientific technology developed by the Sugar Beet National Industrial Complex near Shumen, expanded with the positive practical experience of the producers.

For the first time there was a mass conversion to sowing using a reduced number of seeds. This made it possible to thin the crop more easily and qualitatively. Consequently, today we have the best organized crops in the last five to eight years. Particularly good results were achieved by beet growers in Veliko Turnovo, Ruse, Pleven, Burgas, Stara Zagora and Sliven okrugs. Compared with its previous results, however, Vratsa Okrug achieved its biggest progress! Herbicides were used in a greater quantity and more efficiently. The struggle against main diseases and pests was waged with great precision and promptness. The July and August droughts hindered the development of the plants, particularly in nonirrigated areas. Their condition improved rapidly after the rains. Favorable conditions were created for the intensive growth of root crops and the accumulation of saccharose.

Some ten days are left before the most important and responsible measure within the technological cycle must be undertaken: the harvesting of the sugar beets. A great deal of work must be done under varying and difficult weather conditions. Success in this area depends, above all, on good organization and advance preparations. What has been accomplished so far by the farmers in the APK and PAK, and the collectives of automotive transport enterprises and sugar refineries?

Machine repairs in the plants have been completed. Currently a commission of specialists is conducting a final investigation of all assemblies and

parts with the help of operational and mechanical tests under conditions similar to those in which they will be operating.

The results of the investigations indicate that the plants are ready for the campaign. The capacity of reception facilities has been expanded almost everywhere. The new plant in Kameno, Burgas Okrug, will begin operations at triple its original capacity.

Several days ago the managements of the Bulgarian Sugar PAO, Automotive Transportation DSO [State Economic Trust] and Bulgarian State Railroads DSO reviewed all programs related to the loading and hauling of sugar beets. The number of needed trucks was determined. It was decided that each automotive transportation enterprise and sugar refinery will conclude a socialist competition contract. Such a contract was signed between the Bulgarian Sugar PAO and Automotive Transportation DSO.

The APK and PAK farmers are also intensively preparing themselves for the rhythmical extraction of the beets without losses. All enterprises have adequate KS-6 and Erio model combines. The most important thing is for this highly productive equipment to be used to its full capacity. In order for this to be achieved, the machines must be looked over in the next few days. Only thus will it be possible to avoid unnecessary tension, work rhythmically, and fulfill daily schedules. Spare parts are available at the central warehouse in Gorna Oryakhovitsa. However, the Agromashinaimpeks VTO [Foreign Trade Trust] should supply all the necessary spare parts for the Erio combines. The second major problem which must be resolved as soon as possible is to determine the composition of the mechanized detachments. The APK and PAK have mechanizers with great practical experience. Unfortunately, frequently the machines are assigned to people lacking the necessary training. Also, a number of mechanizers claim that the quality of the equipment is poor. In reality, such people are simply unable to tune properly the operational parts. Beets are wasted and the farms and the state suffer losses. Currently, experienced Soviet specialists are teaching refresher courses in the okrugs, very useful to all.

The APK and PAK have adequate practical experience in the use of material incentives. An example in this respect is the approach of the complexes in Dolna Mitropoliya, Ruse and Kameno. This year again the mechanized detachment will be the basic organizational form. Its advantages are numerous: easier maintenance of the equipment and better facilities for the men, and an easier way for managers to supervise the work process. Naturally, this is only one side of the problem. In order for the work to be fast and of good quality, the automotive combines and sugar refineries must develop a good organization, for everyone knows that by remaining in the field a single additional day, the root crops lose 0.15 percent of their weight and their quality is worsened.

Despite the adverse weather, the crop appears to be good. However, we must not forget that the vegetation period is not over yet. The threat presented

by the noctuid moths and the leaf spot disease is not over. Observations must be continued and, wherever necessary, the crops must be sprayed. Along with the harvesting, we must prepare for the next sowing: the areas to be planted in beets must be indexed. Soil samples must be taken and the soils must be fertilized and prepared. The good farmer thinks of everything in advance!

5003

CSO: 2200

## CZECHOSLOVAKIA

### CSSR TRADE COOPERATION WITH WEST VIEWED

Duesseldorf HANDELSBLATT in German 8/9 Aug 80 p 9

[Article by cmk: "New Search for Western Cooperation"]

[Text] Prague-Berlin--Even though 30 percent of Czechoslovak machinery exports are still going to Western countries, the export structure must be changed. The reason: In fields where the CSSR used to be the world leader, such as with certain textile machines, it now faces oversupplied markets in the Western industrial states. This is the word from Prague's Ministry for General Engineering.

The FRG is still considered the classical trade partner for CSSR machine manufacture, accepting primarily machine tools and dies, textile machines, passenger cars and tractors. This listing alone indicates that the sphere of interest of the General Engineering Ministry is awesome; according to its own words it stretches from thumbtacks to shipbuilding.

The ministry is responsible for a total of 70 percent of the production of consumer goods for the domestic market. Since both the demand and the purchasing power of the Czechoslovak population are great--the ever-expanding "dacha-movement" has reached a point where 50 percent of the families own two households--the new five-year-plan (1981-1985) is to concentrate on the improved supply of the domestic market, especially with household appliances, bicycles and baby carriages.

The ministry repeatedly emphasizes that in the next 5 years, only certain sectors are to be favored. Of primary importance--especially with an eye to the export capability--are to be the development of energy- and material-conservation technologies in machine tool construction. A higher degree of automation as well as an increased use of electronic control mechanisms are to be of primary interest.

A further favorite topic will be production cooperation, especially since the CSSR has been very modest in this field over the years. According to the Ministry for General Engineering, there are currently only 15 cooperation agreements in force with the FRG, although these agreements are extensive in terms of economic volume. Some 30 cooperation agreements, primarily in the field of machine-tool construction, are said to be in the negotiating stage.

The Czechoslovak planners see the agreements as concentrating on the licensing of production, exchanges of components and joint action on third markets. Prague complains that Western firms often talk cooperation, but actually think only about increasing their own exports.

A great interest exists in the field of automobile construction for cooperation with Western countries. However, there is no wish to follow the Romanian, Polish, or even the Soviet example of constructing an entire production line with Western know-how; rather, the aim is limited to the acquisition of partial licenses (see *HANDELSBLATT*, 7 August 1980).

The Prague ministry argues that the Czechoslovak automobile industry has a grand tradition and has possessed since 1964 technologies on a European level which are valid even today. All further efforts are to concentrate merely on energy savings.

Licensing negotiations are currently under way with several major Western automobile concerns, including the Volkswagen Works in Wolfsburg, stated the ministry. The conversations are to clarify the possibilities for cooperation in the manufacture of passenger cars. However, the Wolfsburg offers are said to have been not as favorable as those of other West European automakers, and Prague had gained the impression that VW did not have a real interest in passenger car cooperation. According to reports, the discussions centered on a possible collaboration in engine construction.

The General Engineering Ministry commented guardedly on cooperation with the GDR in automobile manufacturing. It could only be learned that the long-term investment contracts are to be restructured and that the number of reciprocal component deliveries has been reduced. Designs for the 1981-1985 Five-year Plan indicate that the CSSR is also thinking about closer cooperation with Western countries in truck manufacturing; negotiations are said to be under way not only with the FRG but also other states. However, the time is not yet ripe to talk about the extent of the consultations, stresses Prague. A hint at the direction of these talks are taking was merely provided by the remark that the Tatra chassis is eminently suited to carry construction machinery.

The basic concept of the CIO&R Ministry for General Engineering seems to be that the question of the components of both passenger-car as well as truck manufacture is so extensive that the problem of international cooperation has to be taken very seriously, considering especially that the Czechoslovak automobile industry has always bought licenses and wishes to do so in the future as well.

9240

CIO&R: 3103

**CAPITAL ASSET DEPRECIATION SCHEDULES ANNOUNCED**

Prague SBIRKA ZAKONU CSSR in Czech No 94, 8 Aug 80 pp 419-426

[Text] Decree of the Federal Finance Ministry, dated 17 June 1980, concerning the depreciation of capital assets.

The Federal Finance Ministry, in agreement with the finance ministries of the Czech Socialist Republic and the Slovak Socialist Republic, in accordance with section 391, paragraph 1 of the commercial code number 109/1964 of the Laws of the Czechoslovak Socialist Republic, and in the sense decreed in number 37/1971 of the Laws of the Czechoslovak Socialist Republic, establishes:

**Section 1: The Object and Extent of Modification**

This decree modifies the depreciation of capital assets, and establishes the depreciation schedules included in the supplement to this decree.

**Section 2: Responsibility for Depreciation**

1. These organizations depreciate capital assets:<sup>1</sup>
  - a. State economic organizations; within concerns, concern enterprises and specialized concern organizations depreciate in the same fashion,
  - b. cultural and educational support organizations,
  - c. united agricultural cooperatives, communal agricultural enterprises, and improvement cooperatives,
  - d. foreign trade organizations, with the exception of cooperative foreign trade enterprises,
  - e. enterprises and the operating equipment of social organizations, as well as the organizational elements of social organizations designated by their central agency, as long as these elements continually perform economic activity, and register separately the capital assets for this activity,

1. other socialist organizations, insofar as decreed by the relevant finance ministry.
2. The depreciation of capital assets of cooperative organizations not included in paragraph 1, letter c, are governed by this decree if established by their central agency; the relevant central agency of cooperative organizations, in agreement with the relevant finance ministry, will decide on case by case deviations in the depreciation of capital assets by these organizations.
3. Capital assets are depreciated by the organization which administers or owns them, or by the concern enterprise (or specialized concern organization) which carries out their administration. Capital assets which have been committed to permanent utilization,<sup>2</sup> or to long term utilization<sup>3</sup> are depreciated, however, by the permanent or long-term user.

**Section 3: Method of Depreciation**

1. Capital assets are depreciated from the purchase cost<sup>4</sup> according to binding depreciation schedules established in the supplement to this decree, without suspension and up to the amount of the purchase cost.
2. Should an obligation arise to depreciate capital assets which had previously not been tied to such an obligation, then the capital assets are depreciated from the purchase cost, but only to the amount of the current value.
3. In the event of a change in the purchase price, capital assets are depreciated from the changed purchase price, but from the beginning of the month immediately following the beginning of the validity of the purchase price change.
4. Capital assets are depreciated according to their placement in the fields of the individual classification of capital assets established by special regulation,<sup>5</sup> in the case when capital assets are placed in the fields of classes 3 to 7 and the relevant fields are not included in the supplement to this decree, they are depreciated according to a binding yearly depreciation schedule of 12 percent.
5. The current value of a capital asset is understood to be the difference between its purchase cost and adjustments<sup>6</sup> as of the end of the month for which the current value is determined.

**Section 4: The Beginning and End of Depreciation**

1. Capital assets are depreciated from the beginning of the month which directly follows their entry into the capital asset account,<sup>6</sup> to the end of the month in which their purchase price is completely written off, until further notice; when the onset of utilization of capital assets is earlier, they are depreciated from the beginning of the month which immediately follows their introduction into utilization.

2. Capital assets which are not fully depreciated are no longer depreciated by an organization at the end of a month in which

- a. they are placed in mothballs<sup>1</sup> or stockpiled,
- b. they are transferred to the control or ownership of another organization,
- c. they are assumed for sale by an organization which takes care of performing brokerage services,
- d. they are committed to permanent or long-term utilization,
- e. the right to their permanent or long-term utilization expires,
- f. their physical liquidation commences,
- g. they are taken out of service due to damage or defects.<sup>7</sup>

3. In cases where state organizations are obliged to decide concerning the surplus character or uselessness of national property,<sup>8</sup> capital assets which are not fully depreciated may cease being depreciated only on the basis of this decision.

#### **Section 5: Disposition of Current Values of Capital Assets**

1. In a case in which capital assets are not fully depreciated and are eliminated as a result of physical liquidation, damages, or defects, an organization accumulates their current values in its costs.
2. In a valid transfer of control or ownership of capital assets, the transferring organization modifies its costs by the difference between their sales price and current value.
3. An organization is required to express completely, and in a timely manner in its financial plan the total of the current value of capital assets planned for physical liquidation into costs.

#### **Section 6: Capital Assets Not Covered by Depreciation**

The requirement to depreciate does not extend to:

- a. mothballed capital assets,<sup>1</sup>
- b. capital assets exclusively designated for civil defense purposes and for special tasks, as long as they are handled as independent inventory objects,
- c. real estate,
- d. stands of timber,

- e. growths of hops and grapes, as well as fruit trees and bushes which have not reached bearing age, or the numbers of which have not exceeded the established boundary of a husbandry unit,<sup>9</sup>
- f. facilities for flood control and forestry-technical improvement,
- g. other improvement projects up to 2 years following their completion,
- h. recreational facilities of organizations stationed abroad.<sup>10</sup>

#### Section 7: Exceptions

The Federal Finance Ministry may, at the request of a federal agency, grant a waiver from the provisions of paragraphs 2,3,5, and 6 for organizations which it manages, or modify the binding yearly depreciation schedule (hereafter simply "waiver from depreciation"), especially in cases where the capital assets are:

- a. constantly, for the whole period of utilization, exposed to extraordinary environmental influences or operational conditions,
- b. used in a targeted manner, for the completion of a single delivery, operation, or task, and which become upon this completion superfluous or useless.

2. A waiver from depreciation may be permitted particularly under the conditions that:

- a. it is not a matter of constructional, design, technological, functional, and other shortcomings and defects in the capital assets,
- b. the capital assets are used, maintained, repaired, and protected from environmental influences in accordance with legal regulations, technical norms, and the instructions of the producer or importer.

3. A waiver from depreciation may only be permitted with a validity beginning on 1 January of the following year when the application for waiver from depreciation was submitted to the Federal Finance Ministry by 1 July of the current year at the latest. An application for waiver must be properly justified and documented in accordance with paragraphs 1 and 2, and must also express the results of the applied for measures according to special regulations.<sup>11</sup>

4. The finance ministries of the republics may, analogously, permit a waiver from depreciation according to paragraphs 1,2, and 3 for organizations managed by agencies of the republics, national committees, and agricultural administrations; as long as it is not a matter of an organization managed by national committees, the finance ministries of the republics may proceed in these matters in agreement with the Federal Finance Ministry.

## Section 8: Annulling and Transitional Regulations

1. Decree number 76/1966 of the Laws of Czechoslovak Socialist Republic concerning the depreciation of capital assets is revoked, in the sense of decrees number 10/1970 and 97/1976 of the Laws of the CSSR.

2. Insofar as waivers have been permitted under the revoked decrees, they retain their validity until 1 January 1982; high-level central agencies may, however, after verification of the justification for the existing waivers under Section 7 of this decree, request the relevant finance ministry to arrange for their renewed negotiation and authorization.

## Section 9

This decree becomes effective as of 1 January 1981.

Minister: Engr Ler, Candidate for Doctor of Science (signature)

### Depreciation Schedules

Field Code	Short Field Name	Binding Yearly Depreciation Schedule (percent)	Orientation Period for Depreciation (years)
<b>Class 1. Buildings (including accessories)</b>			
801	Buildings of Public Investment	1.3	77
802	Halls of Public Investment	1.3	77
803	Buildings for Habitation	1.3	77
811	Halls for Production and Services	2.0	50
812	Buildings for Production and Services	2.0	50
	in field 812, buildings for		
	--fuel and ore extraction	2.5	40
	--energy generation	4.0	25
	--water management	1.5	67
	--transport and communication	1.3	77
	--warehousing	1.5	67
	in class 1, buildings which are		
	--of wood and like materials	4.0	25
	--temporary <sup>12</sup>	10.0	10

Code <sup>5</sup>	Name	Depreciation Schedule (percent)	Orientation Period (years)
Class 2. Structures (including Distribution Structures)			
813	Towers, Poles, Chimneys	3.3	30
814	Reservoirs, tanks, cisterns, in field 814, cleaners for waste industrial water	1.5	67
815	Special surface facilities	2.0	50
821	Bridges	1.3	77
822	Surface communication and airports	1.3	77
823	Tracks and area upkeep	1.3	77
824	Track beds in field 824, rail superstructure	1.0	100
825	Underground facilities (except mines)	1.3	77
	in field 825, tunnels	1.0	100
826	Underground mining facilities	2.5	40
	in field 826, temporary shafts	20.0	5
827	Long distance and connecting pipelines	1.3	77
	in field 827 --water mains	1.5	67
	--cement pipe sewers	5.0	20
	--steam, heat, oil, gas and air pipelines	3.3	30
	--communications cable lines	5.0	20
	--other cable lines	3.3	30
828	Electric and overhead wires	3.3	30
831	Water treatment	2.5	40
832	Dams and waterway facilities	1.0	100
833	Waterway reservoirs, waterway and canal improvements	2.0	50
	Temporary class 2 structures <sup>12</sup>	10.0	10

Code <sup>5</sup>	Name	Depreciation Schedule (percent)	Orientation Period (years)
<b>Class 3. Energy-related and Driving Machinery and Apparatus</b>			
346	Sources of Electrochemical current	20.0	5
354	Power condensers, parts of assembly distributors and lightening rods	5.0	20
356	Converters (rectifiers) with over 0.1 kilowatt capacity	5.0	20
357	Control panels	5.0	20
359	Electric motors	8.0	12
361	Rotating current sources	4.0	25
362	Transformers and high capacity choke coils	5.0	20
364	Converter station units	5.0	20
365	Building and tower transformer stations and building switching stations	5.0	20
366	Source generating sets and electrical driving systems	5.0	20
426	Pumps	6.0	12
427	Compressors and volume air pumps	6.0	17
428	Turbine compressors	5.0	20
429	Air technology apparatus	7.0	14
432	Cooling and freezing equipment	7.0	14
436	Water treatment equipment	7.0	14
482	Piston motors	6.0	17
483	Industrial and shipboard boilers	5.0	20
484	Central heating equipment	3.3	30
485	Steam turbines	4.0	25
486	Gas turbines and turbine sets	5.0	20
487	Water turbines	4.0	25
488	Atomic reactors and equipment for atomic power plants	5.0	20
	Portable and mobile class 3 machines and equipment	10.0	10

Code	Name	Depreciation Schedule (percent)	Orientation Period (years)
Class 4. Working machines and equipment			
363	Industrial electrical heating equipment	7.0	14
414	Power hand tools	25.0	4
431	Driers	7.0	14
433	Filling and packaging machines and machines for adjusting packaging	8.0	12
434	Fired industrial ovens (exclusive of those for ceramics)	5.0	20
435	Equipment for pumping and measuring liquid fuels	7.0	14
463	Domestic ships and floating equipment	8.0	12
492	Machinery and equipment for underground mining	17.0	6
	Infield 492, conveyor belts	25.0	4
493	Extraction equipment for underground mines	4.0	25
494	Machinery and equipment for coal and ore treatment	7.0	14
495	Digging wheel excavators and overburden dumping machines	5.0	20
496	Machinery and equipment for geological exploration	12.0	8
497	Equipment for extraction and treatment of peat	6.0	17
498	Machinery and equipment for preparation of blast furnace charges and production of raw iron	5.0	20
499	Coking plant machinery and equipment	5.0	20
501	Steel factory machinery and equipment	5.0	20
502	Rolling equipment	5.0	20
503	Foundry machinery and equipment	6.0	17

Code	Name	Depreciation Schedule (percent)	Orientation Period (years)
506	Social equipment mainly for chemical and food industry	6.0	17
	In field 506, gasometers	3.3	30
507	Machinery and equipment for chemical industry	7.0	14
	In field 507, gas plants	5.0	20
508	Machinery and equipment for production and processing of cellulose, paper, and glues	6.0	17
509	Machinery and equipment for processing rubbers and plastic materials	7.0	14
512	Machine tools (exclusive of machine tools for wood)	7.0	14
513	Forming machines for metals and plastics	7.0	14
	In fields 512 and 513, numerically controlled machines	10.0	10
514	Machines and equipment for welding, soldering and cutting metals	8.0	12
515	Surface finishing equipment	8.0	12
516	Machinery and equipment especially for machinery production and metallurgical accessories	10.0	10
519	Machinery and equipment for the woodworking industry	10.0	10
521	Machinery and equipment for the glass industry	7.0	10
522	Machinery and equipment for textile and clothing industry	6.0	17
	In field 522, industrial sewing machines	14.0	7
524	Machinery and equipment for leather goods industry	6.0	17
525	Machinery and equipment for printing and book industry	7.0	14

Code	Name	Depreciation Schedule (percent)	Orientation Period (years)
526	Machinery and equipment for sugar factories, breweries, malt plants, distilleries, brandy plants, liqueur works, wine processing, yeast, mold, vinegar, acids, enzymes, and fat production, starch factories and potato drying facilities	7.0	14
527	Machinery for processing of milk, eggs, grain and fodder, flour, meat, fish, tobacco, for production of chocolate, candies, and canned foods	6.0	17
533	Machinery and equipment for earth moving, construction, and road work	14.0	7
534	Power shovels and bucket ladder excavators	10.0	10
535	Machinery and equipment for processing nonvegetable materials	7.0	14
536	Agricultural machinery and equipment	10.0	10
	In field 536, machinery and equipment for fertilization and plant protection	20.0	5
538	Machinery and equipment for public eating and sales	7.0	14
539	Equipment and implements for dry cleaning, washing, ironing, cleaning, barbering, and hair dressing	10.0	10
541	Heating and boiling equipment	10.0	10
544	Household sewing and weaving machines	7.0	14
	Class 5. Instruments and Specialized Technical Equipment		
348	Lighting equipment	20.0	5
382	Equipment for cable tele-communication	5.0	20

Code <sup>5</sup>	Name	Depreciation Schedule (percent)	Orientation Period (years)
383	Equipment for radio and television communications	12.0	8
388	Mechanical measuring instruments (excluding weights and timers)	7.0	14
389	Electrical measuring instruments (excluding timers)	8.0	12
391	Electronic and electron microscopic measuring instruments	17.0	6
392	Optical-mechanical instruments (including equipment for the processing of film and photographic materials)	10.0	10
393	Scales (excluding laboratory and home scales)	7.0	14
394	Timing instruments	7.0	14
395	Machines and instruments for determining properties and defects of materials	7.0	14
396	Scientific and laboratory instruments and vacuum equipment	10.0	10
397	Health technology including instrumentation	8.0	12
401	Duplication equipment	20.0	5
402	Office machinery, instruments and equipment	10.0	10
403	Data processing equipment	12.0	8
404	Signalling and security equipment	5.0	20
405	Instrumentation for automatic regulation and control	8.0	12
409	Gauges and equipment for measuring geometric sizes	8.0	12
425	Industrial lubricating equipment	12.0	8
	Class 6. Transportation Assets		
429	Air-technical equipment	7.0	14
444	Delivery trucks and personal cars	12.0	8
445	Trucks and their specific modifications	12.0	8

Code <sup>5</sup>	Name	Depreciation Schedule (percent)	Orientation Period (years)
446	Trailers and semi-trailers	12.0	8
447	Buses	17.0	6
448	Trolleybuses and electric buses	9.0	11
449	Fire trucks and fire apparatus (fire prevention assets)	6.0	17
451	Single track motor vehicles and their specific modifications and trailers	17.0	6
454	Equipment for technical service for transportation assets	7.0	14
456	Electric locomotives	4.0	25
457	Motorized and steam locomotives (excluding steam)	4.0	25
	In fields 456 and 457, mine locomotives	10.0	10
458	Rail cars for passenger transportation	5.0	20
459	Rail cars for freight transportation	3.0	35
	In field 459		
	--mining carts	17.0	6
	--large capacity mining carts	5.0	20
463	Domestic ships and floating equipment	3.3	30
464	Sea-going ships and ships for mixed service	5.0	20
465	Airplanes	14.0	7
	In field 465, aircraft propulsion units	25.0	4
468	Cranes	6.0	17
469	Hoisting mechanisms	6.0	17
471	Elevators	6.0	17
472	Transportation equipment for movement of loose materials	6.0	17
473	Equipment for transportation by cable	6.0	17

Code <sup>5</sup>	Name	Depreciation Schedule (percent)	Orientation Period (years)
474	Equipment for loading operations	6.0	17
	in fields 468 to 474, equipment for construction assembly work	14.0	7
475	Carts	17.0	6
476	Transport equipment for piece materials	7.0	14
477	Metal transport assets for palletization and containerization	17.0	6
531	Wheeled and caterpillar tractors	8.0	12
	in field 531, special forest tractors	17.0	6
	Class 7. Inventory		
384	Radio and television receivers and reproductive apparatus	12.0	8
478	Equipment for the storage of piece merchandise	6.0	17
537	Technical assets for mass entertainment	12.0	8
542	Electrical appliances and household refrigerators (excluding heating equipment, light sources and lighting elements)	10.0	10
557	Metal furniture	4.0	25
615	Furniture of wood and other materials (excluding metal)	6.0	17
739	Stage equipment and theatrical needs	6.0	17
742	Musical instruments	10.0	10
744	Sporting goods	10.0	10
	Class 9. Land and Permanent Growths		
094	Permanent stands (excluding forest)	7.0	14

#### FOOTNOTES

1. Decree number 152/1975 of Law of the CSSR, concerning the financing of the replacement of capital assets.
2. Section 70 of the commercial code.

3. Section 350 of the commercial code.
4. Section 34 of CSSR government ordinance number 153/1971, Law of the CSSR, regarding the information system of organizations.
5. Decree number 95/1976 of the Law of the CSSR concerning the individual classification of capital assets, as stated in the latest regulations.
6. Directive of the Federal Finance Ministry on the billing basis.
7. Decree number 155/1971 of the Law of the CSSR concerning the inventorying of economic assets.
8. Decree number 156/1971 of the Law of the CSSR, concerning the disposition of national property.
9. Decree 23/1964 of the Law of the CSSR, which accompanies law number 22/1964 concerning the documentation of real property, as stated in decree number 133/1965 of the Law of the CSSR.
10. Decree number 90/1972 of the Law of the CSSR concerning the financing of certain apparatus for the social needs of enterprises, and for certain activities of state economic organizations and foreign trade organizations.
11. Section 18 of law number 134/1970 of the Law of the CSSR concerning the rules of the federal budget of the Czechoslovak federation and the principles of frugality with the budgeted assets of the budget of the federation and the republics (budget regulations).
12. Decree number 85/1976 of the Law of the CSSR concerning a more detailed modification of territorial administration and construction practice.

9276  
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DEADLINES SAID CLOSING IN ON 'KONZORCIUM' GAS PIPELINE

Bratislava PRAVDA in Slovak 6 Aug 80 p 2

[Article by Jan Dulin, editor of PRAVDA: "Time Is Running Out and Deadlines Call for Action--The Construction of the Konsorcium Gas Pipeline Demands Stepped-Up Activity"]

[Text] Kosice (By our editor, Jan Dulin)--Although the history of the transit gas pipeline system in our country began less than 10 years ago, last year we noted that 100 billion cubic meters of gas had already been transported. The capacity of the system continues to grow and will be considerably expanded by a third line--the Konsorcium gas pipeline now under construction.

Last year a 336-km section of the total length of 909 km had been completed and put into operation, and additional sections now being prepared for operation include new turbosets in compressor plants. At present, however, it is evident that the unfavorable weather conditions particularly in East Slovakia, has retarded the pace of the construction work so much that the October deadline for the completion of the entire construction project is in jeopardy.

Challenge of the Assembly Workers from the Ceskomoravska-Kolben-Danek

Comrade Vojtech Littera, the chief of No 1 construction area in the Transit Gas Pipeline syndicate in Prague, says: "The task of delivering the line sector of the gas pipeline in October of this year is based on concluded agreements concerning Soviet gas deliveries. For that reason we are striving to meet it. The job of operations in East Slovakia is the compressor plant in Jablonov, where we are scheduled to deliver four turbosets. We have organized a special administrative staff which is in charge of the schedule of operations and deals with urgent problems."

The work of the managing staff led by Comrade Littera has been successful. Turbosets Nos 11 and 12 were delivered by the CKD (Ceskomoravska-Kolben-Danek) in Prague--the general supplier of technology--in July, ahead of schedule. The recent aktiv called by the construction-wide committee of the Communist Party of Slovakia with the deputy director of the Transit

Gas Pipeline communal enterprise, Engineer Tibor Kubini, participating, also expressed appreciation for their innovative approach to all suppliers and workers in the group of investors, but the expression of gratitude was not all. The assembly workers again demonstrated their determination to deliver two additional turbosets ahead of schedule, as soon as October.

Their initiative is of particular importance because it guarantees the transport of the required amount of gas even before the delivery of the entire line is completed.

Construction work on the fourth building of the compressor plant in Velke Kapusany is proceeding concurrently with this task. There the Chemkostav of Humenne must definitely speed up the fulfillment of its objective tasks. Furthermore, it must improve its performance in the construction of the third building in Jablonov; it does not have to go far to look for an example to emulate, because the Hydrostav of Kosice has done excellent work on the same construction project.

#### Water and Rock

While work on the projects to construct compressor plants has been progressing on the whole successfully, a rather serious situation has developed on the tract of the gas pipeline. Last year's success and this year's fulfillment of the resolutions made by the welders of the Engineering Construction Works in Kosice in general gave rise to optimism; after all, the successive deadlines for the projects from the eastern border up to Jablonov had been met ahead of schedule, and all that was left for completion was a 16-km section. The plans and socialist pledges made by construction workers, however, were jeopardized by the rains. The soggy ground in the East Slovakia lowlands and high water conditions hampered operations connected with the spanning of rivers because the gas pipeline will cross the Ondava and Laborec rivers with an inverted siphon in their riverbeds. Thus far, the delay in the stipulated schedule of construction may not seem excessive. Nevertheless, the completion of the work in this part of the construction project has been postponed until the end of this year.

The most alarming situation, however, has developed in construction project 303, whose 27-km-long second section will cross the Silica Plateau. The Metallurgical Works in Kosice, as a subcontractor of Sigma in Prague, still has more than 10 km of trenches to dig. Drilling and blasting operations are proceeding very slowly, the applied capacities are insufficient, and the deadline set for pumping the gas into the pipeline is now no longer realistic. It appears that this very section will be crucial for the completion of the entire construction project because tasks are being successfully fulfilled in the okreses of Rimavská Sobota and Lučenec with regard to concrete results, the timetable and the stipulated volume. It is therefore quite correct to demand that the Metallurgical Works Corporation reinforce the capacities of its drilling technology and accelerate its operations. It makes no difference that the construction workers were late starting the work there. The complexity and difficulty of the

construction work on the highland plateau had become fully evident even during the construction of the first two lines of the gas pipeline, and thus they could not come as a surprise. The workers of the general supplier, Sigma of Prague, must consider the consequences of their failure to meet partial deadlines. Under the current unfavorable conditions it is of no avail to search for apologies; it is necessary to find a common language and an expedient solution. Every delay in the construction in one section negatively affects the completion of the work in other parts of the gas pipeline, and influences the subsequent technical and biological reclamation of the land as well.

9064

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GERMAN DEMOCRATIC REPUBLIC

ENERGY MINISTER OUTLINES FUTURE ENERGY PROBLEMS

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[Edited version of plenary presentation by Wolfgang Mitzinger, GDR minister for coal and energy, at Fifth Scientific Conference for Energy Management, Zittau Engineering College, 14-16 November 1979 in Zittau: "The Importance of the Planned Development of Coal and Energy Management Capacities and the Efficient Use of Energy Sources in All Social Areas To Meet the Growing Energy Requirement of the Socialist Society in the GDR"]

[Text] In the 30 years of the existence of the first worker and peasant state on German soil, as well as with the successful development of our country as a stable factor for peace in the heart of Europe, as the home of the revolutionary traditions of the German working class and as one of the 10 developed industrial nations of the world, demands on energy management have grown constantly.

The problems of providing a stable supply of fuels, electrical energy, gas and thermal energy to the inhabitants and the economy, however, have at no prior time been so much the focal point of social interest as is the case today. More than ever before, the effective production and use of energy--and thus the responsible activity of miners and workers in the energy field, of scientists, engineers and economists in the coal and energy sectors, as well as of all workers in the GDR who in one way or another determine the degree of efficiency of energy conversion and use as a result of their work--has obtained a high degree of political priority. It is of decisive economic relevance for the successful realization of our goals of full employment, public welfare, growth and stability.

As was established scientifically at the Ninth SED Party Congress, assuring the raw-materials and energy base for our country is of fundamental importance for the development of productive forces and for construction of the material and technical base of socialism and communism.

Primary tasks are to increase labor productivity and effectiveness of work in our society, to develop the economy proportionally and to strengthen the material and technical base of the economy of our country. Resulting from this are the constantly growing requirements placed on managing coal and energy in the GDR.

Today, the requirements for meeting energy demand have taken on completely new dimensions. They are the result of current conditions on the international market which are characterized by enduring and continuing processes of price increases for raw materials and energy sources. But they are also the consequence of the problems and rising costs for exploring, mining, converting and transporting domestic energy sources.

Our consistent course of fulfilling the main task, namely the unity of economic and social policy, directly includes the daily, interference-free supply of fuel and energy. Because the material and cultural needs of the citizens can only be satisfied with the aid of certain energy sources, the people evaluate the successful implementation of the energy policy of our party and of our socialist state--a policy developed by the Eighth Party Congress and reaffirmed by the Ninth Party Congress--primarily by how the growing needs in fuel and energy are met on a secure and stable basis at all times and under all conditions.

Fuel and energy supply has a high political priority because energy management problems go well beyond the national framework and today already play a decisive role in determining the foreign policy of states. In no region on earth can the problems of raw materials, fuels and energy be solved by one country alone. The capitalist world has been shaken by a profound energy crisis as part of the general crisis of capitalism.

Up to now only the socialist nations, unified in the Council for Economic Mutual Assistance, have been capable of solving their energy problems without the turmoil of such crises. This does not mean that our development is proceeding without problems. But all socialist countries are making great efforts to expand their own raw-materials, fuels and energy base and have experienced the realization of important joint projects in this area. In recent times alone, proof of these efforts can be found in such important projects as the completion of the 750-kV [kilovolt] line between the Soviet Union and the Hungarian People's Republic or the "Soyuz" natural gas pipeline, for which our contribution was the "Druzhba" line. Since 1979, electricity and Soviet natural gas have flowed into our republic through both lines.

The Agreement on Specialization and Cooperation Between the GDR and the USSR until 1990, which was signed on the occasion of the state visit of the general secretary of the CPSU Central Committee, Comrade L. I. Brezhnev, honoring the 30th anniversary of the founding of the GDR, establishes that we will continue on this path in the future and will continue to expand it.

More clearly today than at any time previously do we realize the great economic importance of the fact that our party and state leaders have constantly devoted a great deal of attention in their economic policies to the development and expansion of the domestic energy and raw-materials base as well as to the assurance of a stable supply of energy in the 30 years of development within the GDR.

After 1945, over 30 surface-mining sites as well as 6 new briquette factories, with an annual capacity of around 15 million tons of brown coal briquettes, were established in our socialist worker and peasant state. Today we are producing around 2.4 million tons of coke annually from our domestic brown coal in two brown coal high-temperature coking facilities which are the result of the creative work of scientists, technologists and engineers as well as of our state's construction and assembly workers. Today, for example, it takes us barely 6 months to mine the same quantity of crude brown coal as it did in the founding year of our republic.

In the 30 years of the GDR's existence, production of electricity has been increased to over 500 percent. The largest turbine in 1949 had a standard capacity of 35 MW [megawatts], whereas today we are producing electricity with power plant blocks having a capacity of 525 MW as the result of creative performances by our and Soviet scientists, engineers and machine builders.

Today we are producing in 3 months' time the same amount of city gas as we did in the entire year of the founding of our republic. This results primarily from the development of highly productive procedures for gasification and degasification of domestic crude brown coal as well as the use of our own and imported natural gas for city gas production.

Together with our Soviet friends and comrades, we established a completely new industrial branch, namely the natural gas industry of the GDR, with a current production level of around 9 billion m<sup>3</sup> per year.

In the 30 years of the power of the workers and peasants, a high-performance electricity network has been created for our republic with transmission voltages of up to 380 kV and, as part of the "Frieden" Unified Energy System, up to 750 kV with transmission capacities of over 2,000 MW. Our energy system is thus solidly integrated with those of CEMA member states by means of numerous intermediate system linkages.

The energy policy of the GDR is clearly determined by the resolutions of the Ninth SED Party Congress for the coming years and rests on three important pillars.

First, the needs of the people are to be met by maximum use of our own raw-material and fuel resources in line with the growing of fuels and energy, and planned growth as well as intensification in all branches of the economy of the GDR are to be assured.

Second, specific fuel and energy consumption is to be reduced even further by the continued rationalization of the processes of energy conversion, transmission and use.

Third, on the basis of a consistent realization of the comprehensive program of socialist economic integration, we shall continue to deepen the interrelationships between our economy and the economies of the USSR and the other CEMA member nations.

The implementation of these three premises of our energy policy has also affected the continuous expansion of the fuel and energy base of the German Democratic Republic in the past few years.

The brown coal industry occupies the key position in our country for meeting the growing energy needs of our society.

For meeting the growing energy requirements in the period 1976 to 1980 alone, 13.6 million tons of crude brown coal, 2.8 million tons of brown coal briquettes, 350 kilotonnes of brown coal high-temperature coke as well as over 1 billion m<sup>3</sup> of city gas were made available for the people and the economy. These amounts exceeded the targets of the 1976 - 1980 Five-Year Plan. Playing a major role here were applied scientific techniques in surface mining, such as capacity-increasing remodeling of overburden removal bridges and excavators, the development and application of highly productive maintenance procedures, the improvement of drainage technologies or the continued mechanization of auxiliary and secondary processes, with a simultaneous reduction in heavy physical labor.

In the briquette factories as well, the conversion of research findings into practice contributed to a continued increase in the capacities of drying facilities by using an optimum methodology, to the complex mechanization and partial automation of production processes or to the increase in the life spans of high-wear parts for the purpose of rationalizing the production process.

It led to an increase in labor productivity in briquette production by about 9 percent in the last 3 years in comparison with 1975.

Our socialist society made large amounts of funds available in the past few years for the increased use of domestic crude brown coal, including follow-up investments in the territory in connection with the development of surface mining. In the last 3 years alone, more than M 5.8 billion marks were made available for the establishment of new surface mining capacities, in part as a substitute for exhausted coal deposits, for the reconstruction of refinement facilities as well as for the expansion of workshop capacities. It was and is a main objective of scientific-technical work, in the project-planning process as well as in the realization of investments, to use these funds as effectively as possible.

The experiences of the winter of 1978 and 1979 show that massive scientific-technical as well as organizational tasks still have to be solved in order to assure a high degree of stability and efficiency in all surface mining operations at all times and under all weather conditions. The flow of coal to the power plants, briquette factories and gas production plants, especially under severe weather conditions, may not be interrupted at any time.

Therefore, our work in the recent past has been directed toward the improvement of surface mining technologies and the operating regimen in the in the surface mines, especially with respect to the following conditions:

Implementation of scientifically based technologies between increasing the pace of overburden removal and increasing raw coal mining;

Adaptation of management and equipment technology in the surface mines to possible extreme weather conditions;

Development of scientific-technical technologies for assuring a short-term, priority mining of coal under adverse weather conditions.

Other tasks for increasing the certainty of raw coal supply for large power plants have been accomplished--for example, expansion of coal storage areas in a few power plants, the additional use of railcar discharge equipment, the construction of extraction platforms of the establishment of defrosting walls and halls.

In this connection we believe that research and theories in the management of power plants will have to concern themselves much more in the future with the optimal mastery of large mass flows and with the requirements placed on the organization of work, even under extreme weather conditions. We need more scientific-technical solutions for assuring a high degree of stability for power plants at all times and solidly trained cadres that are capable of managing the power plants safely and stably, even under extraordinary conditions, with as great a degree of availability as possible.

About 50 percent of the still available coal deposits that can be mined in the GDR are in the surface mines that are already in operation or are to be opened by 1990. Of the remaining deposits, which either have not yet been opened up or included in the mining plans up to 1990, about 10 percent are salt coal deposits, any processing of which causes considerable technological difficulties because of the relatively high alkali content. We are also expecting an important contribution by scientists and engineers for solving this problem.

The further development of our brown coal mining efforts in the period around 1990 and thereafter will be determined not only by the useable duration of the deposits and the necessity for ensuring an adequate life span of the large consumers that have been created, such as power plants

and refinement facilities. It will also be determined by the then available approaches and the prerequisites created by deposits for establishing mining capacities. Therefore, our long-term concepts assume that up to 1980, raw coal mining will continue to increase. The period from 1980 to 1985 has a special strategic importance for the further impact of the energy management structure in our republic, aimed at the following considerations:

achievement of a considerable reduction in the use of heating oil through the increased use of domestic raw brown coal; and

Assurance of the prerequisites for an increase in the mining of brown coal in the next decade to 300 million tons per annum.

The great importance of the rapid development of brown coal mining for effectively meeting the growing energy needs of our socialist society can also be seen in the fact that in comparison with 1971, the prices on the capitalist world market for crude oil increased to 1,029 percent and to 179 percent for hard coal in 1979. For example, if one calculates the prices for these energy sources in terms of calories, then crude oil costs 4.5 times more than raw brown coal and 2.7 times more than brown coal briquettes. In the case of hard coal the price is more than double that of briquettes. It can clearly be seen from this comparison that it is very important for our republic to increase our own yields of energy sources on the basis of our domestic raw brown coal and to conserve all energy sources as much as possible.

The importance of brown coal for the production of electricity is illustrated by the power plant structure. Despite the growing proportion of nuclear energy in total electricity production figures, present calculations show that in 1990 over 70 percent of the total production of electricity will have to be supplied by brown coal-fired power plants.

The use of raw brown coal for producing heat is occurring to an increasing extent through the expansion of the district heating supply system.

In concurrence with the housing construction program, a series of new heat facilities, thermal power plants and industrial power plants using brown coal will appear in the coming years.

This fact emphasizes the special importance of raw brown coal for meeting energy needs, for the stable availability of electrical energy helps determine to a decisive degree the dynamic development of the economy as well as the rise in the people's standard of living.

In the past few years we have also ambitiously expanded the power plant base in our country, and alone in the period from 1976 to 1978, capacities were increased by 11.5 percent.

In close socialist cooperation with machine builders, workers in the electrical engineering field as well as construction workers, and as part of the socialist economic integration with the Soviet Union and the other socialist countries, we were able to assure the scheduled start-up of new capacities with a high degree of supply efficiency. Some of these new capacities are the power plants at Hagenwerder III and Boxberg as well as the "Bruno Leuschner" nuclear power plant.

But also decisive for meeting the electricity needs of the GDR was the fact that the average availability of power plant capacities was increased by 2.4 percent in the past 3 years. In this effort it was primarily the scientific work and the worker initiatives that contributed decisively to peak load methodologies, to the application of productive maintenance technologies and to extension of the life spans of the plants.

On the basis of the resolutions on the "Theories Related to Overcoming the Consequences of Extreme Weather Conditions in the Winter of 1978/1979," our work in the past few months has been directed toward creating greater assurances for supplying electricity to the people and to the economy.

The solution of two decisive tasks was emphasized in our work:

First, there were efforts to create the necessary prerequisites so that the availability of power plant capacities, which are the basis of supply balances and plans, is achieved at all times and under all conditions.

Second, we concentrated on achieving a higher degree of supply assurance by projecting demanding objectives for the most economical use of electricity in industry as well as in all other areas of our life. These objectives assume the reduction of the previously planned consumption of electricity by an average of 5 percent by means of conservation without having any effect on production and the standard of living.

To assure a high degree of stability of capacities in power plants, the work has to emphasize the following conditions:

Precise adherence to the operational regimen, especially the operating and control regulations;

Consistent implementation of the repair and remodeling programs for power plant outfitting.

What we need is a greater contribution by science and technology for a high level of management in the power plants to preclude disruptions and accidents.

For example, this involves the development and use of safety equipment which precludes improper procedure and incorrect actions right from the beginning.

But in the determination of necessary maintenance schedules and applications in energy installations as well, there presently are still too few scientifically based and tested instruments and methods which can be used to determine reliably the state of wear and the life span reserve of power plant facilities and electricity transmission systems. For this reason, the methods and procedures of technical diagnostics are to be advanced at a considerably faster pace and applied practically in larger areas of application in order to preclude discontinuities in the electricity supply process as much as possible.

But we also need scientific-technical solutions for a higher level of productivity and effectiveness of the maintenance processes in power plants which will lead to a further reduction in repair times, with a simultaneous reduction in the amount of work necessary and the maintenance of high quality standards.

The main way to achieve the objectives we have posed for securely meeting the growing demand for electricity in our socialist society is and remains the continued expansion of socialist intensification, with a simultaneous acceleration of scientific-technical progress as well as the systematic construction of new capacities.

Continuing to design the developed socialist society in the GDR simultaneously includes new and greater tasks for science and technology. We especially need results in research and development from our institutes and universities, results which set world standards and which can be transferred into practice within the shortest possible period of time.

Science and technology are integrated components of management and planning in the development of the fuel and energy base. We derive our development objectives from the information gained thereby for the planned design of the energy base of our socialist society.

But simultaneously we also determine the requirements to be placed on science and technology for assuring the growth of performance, productivity and effectiveness from the requirements resulting from the continued designing of the developed socialist society in the GDR.

With respect to the continued expansion of the power plant base in our republic, access to capacity will be determined primarily by the new brown coal power plants with 500-megawatt block units and by nuclear power plants with large block units. The close cooperation with the USSR in constructing these power plants assures the comprehensive realization of scientific-technical progress as well as the smooth adoption of the most advanced experiences in power plant construction in the USSR, a country which occupies a leading position in the world.

The output structure is being improved gradually with the continued expansion of our power plant base. Completion of the pump storage plant in Markersbach, with 1,060 MW in 1981, will be a decisive component. Together with the existing pump storage plants and gas turbine plants, the percentage of pure peak power in total power will increase from 6.1 percent in 1975 to about 10 percent in 1985. With the construction of industrial and thermal power plants, we will be making even greater use of the energetically and economically advantageous heat-to-power coupling method using the building-block solution for thermal power plants and industrial power plants, now being developed and constructed, with 320-tonnes per hour steam generators using raw brown coal and 60-MW bleeder back-pressure turbines. This type of thermal power plant will determine the profile of heat supply in the coming decades. This is of decisive importance for the ambitious realization of the housing construction program as the core of the SED's social policy program.

Alone in the period from 1976 through 1980, over 93 percent of all newly constructed housing is being outfitted with modern heating systems; of these, around 78 percent use district heating.

The continued development of the electricity system, however, also requires the continued systematic expansion of the main transmission lines with 220/380 kV in connection with the power feed from the new power plant locations. The 380-kV system will be designed as a beam network until about 1980 and then be increasingly interlaced with cyclical circuits. The 380-kV system is related to the gradual construction of a 750-kV system-forming network of the Unified Energy System of the CEMA member states. The first step in this direction was the establishment of the 750-kV intermediate system connections between Vinnitsa (USSR) and Albertirsa (Hungarian PR).

We have achieved a marked scientific level in calculating and optimizing the expansion plans of electrical mains. This level must also be achieved in the management of electrical transmission systems.

Microelectronics and computer technologies are providing us with important assistance on this point, as has been confirmed by the first cases of application.

But in this area as well, the pace has to be accelerated and a closed concept for automating the associated electricity system has to be developed.

Along with the increase in the performance of coal and energy management by intensifying existing facilities and building new capacities, growing importance is being accorded to the rational and economical use of energy as a fixed component of our socialist energy policy.

The rational use of energy and the consistent reduction in avoidable energy-conversion, transmission and application losses are increasing the leeway in economic growth considerably and are thus having a direct affect on the successful continuation of our economic and social policies which are directed toward fulfilling the main task.

The consistent adaptation of energy needs for production to technically and economically based consumption values that are oriented toward the peak scientific-technical level, and assurance of the economical and rational consumption of energy in all other areas of social life, especially for room heating, lighting and transportation, are the tasks which will continue to require intensive penetration by science and technology. Initial results have already been achieved.

The growth rate in the national income of more than 5 percent per annum was achieved in the past few years with a utility energy growth rate averaging only 2.0 percent. The specific expenditure of primary energy per mark of gross production was reduced by around 25 percent. By means of economic rationalization in energy and an improved energy sources structure, from 1971 to 1978 energy conservation was achieved which corresponds to about 58 million tons of raw brown coal.

The high degree of effectiveness of economic rationalization measures for energy is expressed in the return flow time span for investments averaging 1.5 years.

These few figures do show clearly that the rational use of energy is not a matter that was born out of necessity but rather is a rule of socialist management derived from the law of the economy of time.

It is objectively necessary here to place the question about reduction of energy losses in the management of coal and energy at the top of the list of all considerations.

Up to now, the specific index figures for energy consumption have been undercut for a whole series of energy-intensive processes, including gas and coke production as well as the production of briquettes. The core problem, however, consists in achieving a considerably faster pace for reducing the specific fuel-to-heat consumption for electrical energy production, especially in our large power plants.

Along with conserving fuels and increasing degrees of energy conversion efficiency, the use of incidental and environmental energy also plays an important role.

Undoubtedly, in the GDR good results have already been achieved in the use of secondary energy sources. Waste xylite-bearing wet ash, coal-mix products and sump products as well as brown coal briquette dust have been used almost completely. This also applies to liquid and gaseous waste fuels. The waste energy sources used at present are equivalent to about 20 million tons of raw brown coal. If we consider that almost half of the waste energy sources are being used, then the comparison of both values indicates the importance of the greater use of waste energy sources for our republic's primary energy balance.

The higher requirements placed on a rational and economical use of energy, as was dictated to us with the resolution of the GDR Council of Ministers, dated 13 September 1979, are the bases for the 1980 plan and for conducting the socialist competition. This can be perceived mainly by using the following comparison of figures: the annual growth rate in primary energy source supply from 1971 to 1976 was 2.0 percent and from 1976 to 1979 an average of 2.7 percent per year, but the 1980 plan estimate projects economic growth with a growth rate for primary energy of 1.7 percent.

The tasks to be solved in the coming period are clearly defined in the resolutions of the party and government for the continued development of the fuels and energy base in our republic.

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## STATISTICS ON 1979 LABOR TURNOVER PUBLISHED

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(Text)

1. Pályai foglalkozások műszámváltozásai az iparban 1979. évben

3. Magyarország	4. Adagja statisztikai előirányítási tervezésre (%)	5. Munkáltatói átlagok		6. Munkáltatói kölcsönök	
		7. műszám (%)	8. műszámváltozás	7. műszám (%)	8. műszámváltozás
9. Bányászat	94 062	12 616	13,4	14 240	15,1
10. Villamosenergia-ipar	25 643	5 076	19,8	5 426	21,2
11. Kötőipar	76 576	13 969	18,2	14 521	19,0
12. Gépipar	382 437	87 937	23,0	99 380	26,0
13. Élelmiszeripar	63 452	16 346	25,8	16 759	26,4
14. Vevőipar	82 668	17 056	20,6	18 253	22,1
15. Nehézipar	724 839	153 000	21,1	168 507	23,3
16. Képnyűipar	344 300	87 958	25,3	99 924	29,0
17. Egységi ipar	48 774	15 286	31,2	15 392	31,4
18. Elsőműszakiipar	149 203	54 737	36,7	34 715	36,7
19. Ipar összesen	1 267 343	310 981	24,3	338 620	26,7
20. Ebből:					
21. Állami	1 080 423	258 763	24,0	282 443	26,2
22. Szövetkezet	186 920	52 216	27,9	55 177	29,5

(Table continued on following page)

2. Néhai és nem fizikai foglalkozások létszámváltozása az Iparban 1979. évben

3. Magnezesés	4. Átlagos statisztikai állományi létszám (fő)	5. Munkások létszám		6. Munkások kiürítés	
		7. kezdet (fő)	8. visszaéle	7. kezdet (fő)	8. visszaéle
9. Bányászat	113 365	14 147	16,5	15 819	14,8
10. Villamosenergia-ipar	23 246	6 536	18,5	6 803	19,3
11. Kohászat	95 082	16 022	16,7	16 699	17,4
12. Gépgyártás	514 530	107 680	20,9	122 325	23,8
13. Építőipar	77 066	18 260	23,7	18 730	24,3
14. Vágypar	109 613	20 491	18,7	21 994	20,1
15. Nehézipar	945 812	183 134	19,4	302 512	21,4
16. Környékiipar	401 719	98 441	24,0	109 587	27,3
17. Élelmiszeripar	58 422	16 893	28,9	17 089	29,3
18. Állomásszeripar	189 339	61 172	33,3	61 455	33,5
19. Ipar összesen	1 595 292	337 640	22,4	390 643	24,3
20. Ebből:					
21. Állami	1 376 795	299 400	21,7	329 440	23,9
22. Szovetkezet	218 497	38 240	26,7	61 203	26,0

## Key:

1. Changes in the number of manual workers employed in industry in 1979
2. Changes in the number of manual and non-manual workers employed in industry in 1979
3. Designation
4. Average statistical labor force (person)
5. Starting work
6. Leaving work
7. Number (person)
8. Percent
9. Mining
10. Electric power industry
11. Metallurgy
12. Machine industry
13. Building material industry
14. Chemical industry
15. Heavy industry
16. Light industry
17. Other industry
18. Food industry
19. Industry, total
20. Of which:
21. State
22. Cooperative

3 Nem fizikai foglalkozások összámítása az iparban 1979. évről

2 Magyarország	3 Általános statisztikai állományi összeg (fő)	4 Munkások Népesség		5 Munkások körépítések	
		6 néhány (fő)	7 százaléka	6 néhány (fő)	7 százaléka
8 Bányászat	19 303	1 531	7,9	1 579	8,3
9 Villamosenergia-ipar	9 703	1 450	14,9	1 379	14,3
10 Kohászat	19 306	3 053	16,4	3 318	12,0
11 Gépgyártás	132 101	19 751	15,0	23 945	17,4
12 Építőipar	13 616	1 914	14,1	1 981	14,4
13 Vágyipar	26 945	3 435	12,7	3 741	13,9
14 Nehézgyártás	220 974	30 134	13,6	33 923	15,4
15 Környékiipar	57 411	8 483	14,9	9 663	16,8
16 Egyéb ipar	9 428	1 607	17,0	1 697	16,0
17 Élelmiszeripar	40 126	6 425	16,0	6 740	16,8
18 Ipar összesen	327 949	44 639	13,3	52 023	15,9
19 8 8 8 1:					
20 Állami	296 372	40 625	13,7	45 997	15,3
21 Szövetkezeti	31 577	6 024	19,1	6 026	19,1

22 Fizikai és nem fizikai foglalkozások összámítása az építőiparban 1979. évről

2 Magyarország	3 Általános statisztikai állományi összeg (fő)	4 Munkások Népesség		5 Munkások körépítések	
		6 néhány (fő)	7 százaléka	6 néhány (fő)	7 százaléka
23 Műszakiépítés	233 464	64 938	27,8	71 506	30,6
24 Műszakiépítés	43 004	14 068	32,5	19 175	30,4
25 Építői szak- és szervizépítés	30 467	5 267	17,7	5 700	26,0
26 Építőipari kiviteliadó	316 937	66 373	21,2	96 391	30,5
27 Építőipari tervezés	35 716	6 208	17,4	6 873	19,2
28 Építőipar összesen	352 653	93 483	26,3	103 454	29,3
29 8 8 8 1:					
30 Állami	282 541	68 413	24,2	79 041	28,0
31 Szövetkezeti	70 092	25 070	34,3	24 413	34,8

[Table continued on following page]

(Table continued)

32. Műhely

23. Műszakiipar	189 666	58 079	30,7	64 066	33,6
24. Műszakiipar	50 424	14 365	28,5	17 034	33,8
25. Építői szak- és					
szerszámipar	16 181	4 663	28,8	5 170	32,0
26. Építőipari kivitelezés	256 063	77 109	30,1	88 270	33,7
27. Építőipari tervezés	4 432	1 377	31,1	1 638	34,7
28. Építőipari összesen	340 697	76 466	30,1	87 916	33,6
29. 30. 31. Állami Szövetkezet	203 682	56 090	37,9	65 902	32,4
	36 815	21 396	38,0	22 018	36,8

33. Non-műhely

23. Műszakiipar	44 006	6 839	15,4	7 440	16,9
24. Műszakiipar	12 580	1 703	13,3	2 121	16,9
25. Építői szak- és					
szerszámipar	4 286	604	14,1	720	17,0
26. Építőipari kivitelezés	60 872	9 166	15,1	10 291	16,9
27. Építőipari tervezés	31 284	4 831	15,4	5 245	16,8
28. Építőipari összesen	92 156	13 997	15,3	15 536	16,9
29. 30. 31. Állami Szövetkezet	78 879	11 523	14,6	12 141	16,7
	13 277	3 474	18,6	3 395	18,0

Key:

1. Changes in the number of non-manual workers employed in industry in 1979
2. Designation
3. Average statistical labor force (person)
4. Starting work
5. Leaving work
6. Number (person)
7. Percent
8. Mining
9. Electric power industry
10. Metallurgy
11. Machine industry
12. Building material industry
13. Chemical industry
14. Heavy industry
15. Light industry
16. Other industry
17. Food industry
18. Industry, total
19. Of which:
20. State
21. Cooperative
22. Changes in the number of manual and non-manual workers employed in the construction industry in 1979
23. Surface construction industry
24. Civil engineering building industry
25. Construction technical and fitting industry
26. Construction industry finishing
27. Construction industry planning
28. Construction industry, total
29. Of which:
30. State
31. Cooperative
32. Manual
33. Non-manual

1. Pályai és nem pályai foglalkozások létszámváltozása a mezőgazdaságban  
1979. évben

2 Megnevezés	3 Átlagos munkaadókhoz állományi létszám (fő)	4 Munkába lépők		5 Munkából kilépők	
		6 száma (fő)	7 százaléka	6 száma (fő)	7 százaléka
8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047 2048 2049 2050 2051 2052 2053 2054 2055 2056 2057 2058 2059 2060 2061 2062 2063 2064 2065 2066 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[Table continued]

19. Fizikai foglalkozások létszámny változása a szállítás és hírközlésben  
1970. évben

2 Megnevezés	3 Átlagos statistikai állomány létszáma (16)	4 Munkásba lépők		5 Munkából kilépők	
		6 száma (16)	7 százaléka	6 száma (16)	7 százaléka
20. Vasúti közlekedés	104 349	40 796	39,1	15 545	14,9
21. Körúti közlekedés	108 292	25 362	23,4	26 423	24,4
22. Városi közlekedés	26 939	6 525	24,2	5 961	22,1
23. Vízi közlekedés	4 076	1 012	24,8	999	33,0
24. Légi közlekedés	2 104	418	19,9	374	13,0
25. Csoportozás nélk. szállítás	1 638	170	10,9	239	15,8
26. Kiszolgáltatás szolgáltatás	198	70	39,4	63	31,8
28. Szállítás	247 616	74 389	30,0	49 423	20,0
29. Hírközlés	34 712	20 132	58,0	19 118	55,1

34. Nem fizikai

20. Vasúti közlekedés	33 639	6 628	19,7	2 749	8,2
21. Körúti közlekedés	24 475	3 684	15,1	3 704	15,1
22. Városi közlekedés	6 991	945	12,1	1 132	16,2
23. Vízi közlekedés	2 382	244	10,2	319	13,4
24. Légi közlekedés	2 291	499	21,8	300	13,1
25. Csoportozás szállítás	572	78	13,6	101	17,7
26. Kiszolgáltatás szolgáltatás	30	0	26,7	7	23,3
28. Szállítás	70 380	11 704	17,0	8 312	11,8
29. Hírközlés	27 837	7 577	27,3	6 406	23,7

  

30. Szállítás és hírközlés	98 217	19 563	19,9	14 918	15,2
31. Ebből:					
32. Állami	97 903	19 485	19,9	14 853	15,2
33. Szövetkezet	314	78	24,8	65	20,7

[Key on following page]

**Key:**

1. Changes in the number of manual and non-manual workers employed in agriculture in 1979
2. Designation
3. Average statistical labor force (person)
4. Starting work
5. Leaving work
6. Number (person)
7. Percent
8. Agriculture
9. Of which:
10. State farm
11. Forestry
12. Agriculture and forestry
13. Of which:
14. State
15. Cooperative
16. Manual
17. Non-manual
18. \* Without special cooperatives
19. Changes in the number of manual workers employed in transportation and communication in 1979
20. Rail transport
21. Road transport
22. City transport
23. Water transport
24. Air transport
25. Pipeline transport
26. Transport-like services
28. Shipping
29. Communication
30. Transportation and communication
31. Of which:
32. State
33. Cooperative
34. Non-manual

1. Piaikai és nem piaikai foglalkozások létszámváltozása a szállítás és hírközlésben  
1979. évben

2 Megnevezés	3 Átlagos statistikai állományi létszáma, (fő)	4 Munkába lépők		5 Munkából kilépők	
		6 száma (fő)	7 százaléka	6 száma (fő)	7 százaléka
8 Vassúti közlekedés	137 988	47 424	34,4	18 294	13,3
9 Kereúti közlekedés	132 767	29 064	21,9	30 137	22,7
10 Városi közlekedés	33 950	7 370	21,7	7 093	20,9
11 Vízi közlekedés	6 458	1 234	19,4	1 217	18,8
12 Légi közlekedés	4 393	917	20,9	574	13,1
13 Csőszállítás	2 210	256	11,6	360	16,3
14 Közlekedésjellegű szolgáltatás	228	66	37,7	70	30,7
15 Szállítás	317 996	86 375	27,2	57 735	18,3
16 Hírközlés	62 549	37 709	44,3	25 724	41,1
17 Szállítás és hírközlés összesen	380 545	114 084	30,0	83 459	21,9
18 Ebből:					
19 Általai	378 530	113 588	30,0	83 013	21,9
20 Szövetségesi	2 015	46	34,6	446	22,1

(Table continued on following page)

[Table continued]

21 Piatrai foglalkozások mennyisége és tervezettsége a kereskedelmben  
1979. évben

2. Magnezsűs	3. Állagos statisztikai állomány Mennyisége (fő)	4. Munkások lépők		5. Munkásból kilépők	
		6. Mennyisége (fő)	7. százaléka	6. Mennyisége (fő)	7. százaléka
22 Termelőszövetségek és közszövetségek nagykereskedelmi	17 754	4 149	23,4	4 394	24,7
23 Mezőgazdasági termék nagykereskedelmi	19 290	8 244	42,7	8 760	45,4
24 Hollótermék és holládék-bogyóító nagykereskedelmi	3 134	1 436	45,8	1 353	43,2
25 Fogyasztási cikk nagykereskedelmi	15 126	6 583	43,5	6 389	42,2
26 bolti kiskereskedelmi	66 061	22 412	33,9	20 857	31,6
27 Gyógyszerek kereskedelmi	11 947	2 957	24,8	2 304	19,3
28 Vendéglátás	64 100	28 784	45,2	27 006	42,5
29 Vágyes tevékenységű kereskedelmi	89 420	35 521	39,7	32 405	36,2
30 Kereskedelmi szolgáltatók	2 864	1 784	62,3	1 073	37,5
31 Belföldi kereskedelmi	289 696	112 074	38,7	105 430	36,4
32 Külföldi kereskedelmi	4 051	1 439	35,5	1 446	35,7
33 Kereskedelmi összesen	293 747	113 513	38,6	106 966	36,4
34 Ebből:					
35 Állami	182 024	67 694	37,2	64 430	35,4
36 Szövetkezet	111 723	45 819	41,0	42 446	38,0

(Key on following page)

Key:

1. Changes in the number of manual and non-manual workers employed in transportation and communication in 1979
2. Designation
3. Average statistical labor force (person)
4. Starting work
5. Leaving
6. Number (person)
7. Percent
8. Rail transport
9. Road transport
10. City transport
11. Water transport
12. Air transport
13. Pipeline transport
14. Transport-like services
15. Shipping
16. Communication
17. Transportation and communication
18. Of which:
19. State
20. Cooperative
21. Changes in the number of manual workers employed in trade in 1979
22. Capital goods and stockpiling wholesale trade
23. Agricultural product wholesale trade
24. By-product and waste collecting wholesale trade
25. Consumer goods wholesale trade
26. Store retail trade
27. Pharmaceutical trade
28. Catering
29. Miscellaneous trade
30. Trade services
31. Domestic trade
32. Foreign trade
33. Trade, total
34. Of which:
35. State
36. Cooperative

1. Nem fizikai foglalkozások létszámváltozása a kereskedelmben  
1979. évben

3 Megnevezés	4 Átlagos statistikai állományi Mennyiség (fő)	5 Munkások Helyek		6 Munkából kilépők	
		7 száma (fő)	8 százaléka	7 száma (fő)	8 százaléka
9 Termelőszövetségek és készszerző nagykereskedelmi	12 928	2 338	18,1	2 309	18,3
10 Mezőgazdasági termék nagykereskedelmi	7 759	1 094	14,1	1 302	16,8
11 Mezőgazdasági termék és hulladékbegyűjtő nagykereskedelmi	1 389	350	25,2	370	26,6
12 Fogyasztási cikk nagykereskedelmi	12 148	2 509	20,7	2 561	21,1
13 bolti kiskereskedelmi	31 468	3 427	10,9	4 333	13,8
14 Gyógyszerek kereskedelmi	4 998	650	13,2	544	10,9
15 Vendéglátás	26 541	6 815	25,7	7 150	26,9
16 Vegyes tevékenységű kereskedelmi	39 512	6 036	15,3	6 149	15,6
17 Kereskedelmi szolgáltatások	5 137	1 490	29,0	1 309	23,5
18 Belkereskedelmi	141 880	24 717	17,4	26 007	18,3
19 Külkereskedelmi	18 027	3 673	20,4	3 551	19,7
20 Kereskedelmi összesen	159 907	28 390	17,8	29 558	18,5
21 Ebből:					
22 Állami	110 156	20 439	18,6	21 543	19,6
23 Szövetkezeti	49 751	7 951	16,0	8 015	16,1

{Table continued on following page}

[Table continued]

2. Pályai és nem pályai foglalkozások hétsámváltozása a kereskedelomban 1979. évben

3 Megnevezés	4 Átlagos statistikai állományi hétsáma (fő)	5 Munkába lépők		6 Munkából kilépők	
		7 száma (fő)		8 százaléka	
		7 száma (fő)	8 százaléka	7 száma (fő)	8 százaléka
9 Termelőszakszó és készítősző nagykereskedelem	30 682	6 487	21,1	6 783	22,1
10 Mezőgazdasági termék nagykereskedelem	27 049	9 330	34,5	10 062	37,3
11 Melléktermék és hulladékbeüzem nagykereskedelem	4 523	1 786	39,3	1 723	38,1
12 Fogyasztási cikk nagykereskedelem	27 274	9 094	33,3	8 949	32,8
13 Bolti kiskereskedelom	97 529	25 839	26,3	25 190	25,8
14 Gyógyszerkereskedelem	16 945	3 615	21,3	2 848	16,8
15 Vendéglátás	90 641	35 801	39,5	35 036	38,7
16 Vegyes tevékenységgel kereskedelom	128 932	41 557	32,2	38 554	29,9
17 Kereskedelmi szolgáltatások	8 001	3 274	40,9	2 282	28,5
18 Belkereskedelem	431 576	136 791	31,7	131 427	30,5
19 Külkereskedelem	22 078	5 112	23,2	4 997	22,6
20 Kereskedelmi összesen	453 654	141 903	31,3	136 424	30,1
21 Ebből:					
22 Állami	292 180	88 133	30,2	83 963	29,4
23 Szövetkezeti	161 474	53 770	33,3	50 461	31,3

[Key on following page]

Key:

1. Changes in the number of non-manual workers employed in trade in 1979
2. Changes in the number of manual and non-manual workers employed in trade in 1979
3. Designation
4. Average statistical labor force (person)
5. Starting work
6. Leaving work
7. Number (person)
8. Percent
9. Capital goods and stockpiling wholesale trade
10. Agricultural product wholesale trade
11. By-product and waste collecting wholesale trade
12. Consumer goods wholesale trade
13. Store retail trade
14. Pharmaceutical retail trade
15. Catering
16. Miscellaneous trade
17. Trade services
18. Domestic trade
19. Foreign trade
20. Trade, total
21. Of which:
22. State
23. Cooperative

1. Fizikai és nem fizikai foglalkozások létszámváltozása a visszatérítésekben  
1979. évben

2 Megnevezés	3 Átlagos statistikai állomány száma (10)	4 Munkába lépés		5 Munkából kilépés	
		6 száma (10)	7 százaléka	6 száma (10)	7 százaléka
8 Visszatérítés száma	73 070	16 572	22,7	14 982	20,5
9 Ebből:					
10 Általai	61 720	13 241	21,3	11 944	19,4
11 Szervezetesi	11 350	3 331	29,3	3 038	26,8
12 Fizikai					
8 Visszatérítés száma	56 779	14 087	24,8	12 714	22,4
9 Ebből:					
10 Általai	48 050	11 335	23,4	10 143	21,1
11 Szervezetesi	8 729	2 752	32,7	2 571	29,5
13 Nem fizikai					
8 Visszatérítés száma	16 291	3 483	15,3	2 388	13,9
9 Ebből:					
10 Általai	13 670	2 006	14,7	1 801	13,3
11 Szervezetesi	2 621	479	18,3	477	17,8

[Table continued on following page]

14. Fizikal és nem fizikai foglalkozások Munkahelyi változásai az anyagi Ágazatokban  
1979. évben

2 Magneváros	3 Általános statisztikai állomány Munkások (15)	4 Munkások Helyük		5 Munkások kiemelkedő Munkahelyi kiemelkedő	
		6 száma (16)	7 százaléka	6 száma (16)	7 százaléka
15. Anyagi Igazgatás	3 606 426	887 423	24,5	891 140	24,7
16. Szövetségek					
17. Állami	2 570 005	622 924	24,3	632 013	24,6
18. Szövetkezetek	1 035 591	264 500	25,5	259 077	25,0
19. Felhaladás					
15. Anyagi Igazgatás	2 800 634	760 393	27,1	762 370	27,3
16. Szövetségek					
17. Állami	1 944 185	524 924	27,0	530 500	27,3
18. Szövetkezetek	856 471	238 379	27,3	232 710	27,3
20. Nem felhaladás					
15. Anyagi Igazgatás	805 820	127 129	15,8	127 762	15,9
16. Szövetségek					
17. Állami	626 700	98 000	15,6	101 473	16,2
18. Szövetkezetek	179 120	29 129	16,3	26 307	14,7

Key:

- Changes in the number of manual and non-manual workers employed in water management
- Designation
- Average statistical labor force (person)
- Starting work
- Leaving work
- Number (person)
- Percent
- Water management, total
- Of which:
- State
- Cooperative
- Manual
- Non-manual
- Changes in the number of manual and non-manual workers in the material branches in 1979
- Material branches, total
- Of which:
- State
- Cooperative
- Manual
- Non-manual

## MANPOWER REGROUPING, RETRAINING MEASURES DISCUSSED

Budapest IGYELO in Hungarian No 33, 13 Aug 80 p 1,6

[Article by Dr Iren Szabo: "Labor Management. Regrouping, Retraining and Skills"]

[Text] Technological and economic development, combined with a changing product structure, affects workers' skills in a number of ways. On the one hand, it requires skills that are convertible (i.e., include a number of trades and job assignments) and are based on a higher educational level. On the other hand, it requires regrouping and retraining of a substantial portion of employed skilled workers.

At the present time, the skilled labor force of enterprises can be classified according to the workers' credentials as follows: the so-called "in-house skilled workers" (those who have completed 8 grades or less); those who have obtained their credentials by completing courses after work (also with a 8th grade education or less); skilled workers who have graduated from training institutes (8 grades plus 2 or 3 years of training); and, finally, skilled workers with a high school diploma.

### Worker's Certificates From Many Sources

Most of the so-called "in-house skilled workers" have spent a long time in the same job at the same enterprise. They have accumulated a great deal of experience. In general, their theoretical knowledge is on a low level, their skills are narrow, but they are competent and know a great deal about local conditions. Convertibility of their skills is narrow: it is restricted to jobs not much different from the one they have learned.

Skilled workers who have completed courses along with their work differ from the preceding category in that their worker's certificates must be accepted by all enterprises. As a result, this group has more mobility. Their convertibility within the enterprise is in most cases restricted to jobs that were part of their trade at the time when they took their courses.

It must be noted that participation in vocational training by those already in the work force declined between 1960 and 1974.

Graduates of vocational training institutes are somewhat better acquainted with theory. This provided a better basis for further technical training. This is especially true for those who have received 3 years of vocational training after finishing eighth grade. The number and percentage of vocational institute students enrolled in advanced programs increased greatly between 1960 and 1974. Their percentage rose from 0.2 percent during the 1964-65 academic year to 47.2 percent in 1973-74. Expansion of this system creates better conditions for further training, raising the general and special skills of workers and converting skills.

Skilled workers who have obtained their certificates after finishing high school have received technical training over a much shorter period (the difference is 1 or 1.5 years). This is because they have learned about theory in the high school. As a rule, they are easier to "convert" than those without a high school diploma, precisely because of their theoretical knowledge.

The training of graduates of technical high schools differs from that of other high school graduates mainly in that their basic knowledge of humanities and natural sciences is on a somewhat more modest scale, while their basic knowledge of technical matters is more extensive. On the other hand, their work experience is less than that of vocational school graduates. Their absorption into the workplace involves more problems, but they are highly "convertible," especially in jobs requiring a lot of theory.

One can assume that with the increasing integration of technological processes in the future there will be an increasing need for workers who have received training in a number of interrelated skills in a technical high school where they have acquired knowledge of a large segment of the production process.

Technical development and changes in the product structure over the next 10 to 15 years will both require a great deal of realignment and regrouping. The quality, composition and adaptability of the work force will have a major effect on the rapid and smooth fulfillment of these tasks.

#### Without an Eighth Grade Education?

The fact is that the education and training of manual workers has undergone major changes in the last 30 years. There is an intimate relationship between age composition and educational level because young people have had much better opportunities to study and, of course, because the age groups with a lower educational level are gradually leaving the productive work force. Development of the workers has a similar effect: more and more are finishing elementary school; the number of skilled workers with high school diplomas is increasing and teaching in technical high schools is increasingly being coordinated with vocational training.

Nevertheless, we must know that, alongside the laudable accomplishments, about one half of active wage-earners doing manual work have not completed elementary school. This situation, unfavorable as it is, is further complicated by the fact that about 30 percent of those who have not finished elementary school (500,000 people) belong to the 15 to 30 age group. This is especially noteworthy because these people will take part in socially organized work for up to 20 to 30 years. The situation is further exacerbated by the constant "regeneration" of the group that has not finished elementary school. Every year, about 12,000 to 15,000 young people exceed the compulsory school age limit without finishing their elementary school studies. This is one reason why, in some trades, it is not possible to insist on elementary school graduation as a prerequisite for adult training. Lack of basic elementary school subjects is a critical point of labor management, retraining and convertibility within enterprises because the theoretical basis of technical training is lacking.

One and one half million people passed the tests to become skilled workers between 1960 and 1973. This represents 80 percent of all skilled workers in 1973. This does not mean, however, that a corresponding percentage of skilled workers finished school after 1960 because some obtained certificates in two or even three trades, others got white-collar jobs after earning their certificates, while a substantial number of young skilled workers took unskilled or other jobs due to financial reasons.

#### **Education and Technology**

By analyzing the question from another viewpoint based on the age composition of skilled workers and other data, one can conclude that about one half of skilled workers in 1973 finished training after 1960. This means that about one half of today's skilled workers got their certificates in the 1950's when the number of students increased suddenly, but the financial and personnel conditions of training were, to put it mildly, deficient. (On this topic, more in FIGYELO, No 27, 1980. - Ed.)

At the same time, there were periods when novice workers entered socially organized work in such numbers that the relatively few well-trained professionals were unable to give them any competent direction. As a result, practical experience contributed to problems arising from the low quality of training, rather than remedying them.

From the standpoint of the development of our economic structure one cannot neglect the fact that about 1 million active wage-earners have entered industrial organizations straight from households or agriculture. (55 to 60 percent of today's unskilled or semi-skilled workers are still of peasant origin). In the majority, they have no skills or have only the kind of skills and experience that is largely unnecessary for today's economy. The educational level, skills, technical, organizational and work structure of workers entering industry and construction directly from agriculture and household work as a result of this large-scale realignment was much lower than the general and technical sophistication of the group

they joined. Their adaptability is still slowed by problems accompanying a shift in environment. This has a direct effect on the quality of production, the technology to be employed and the utilisation of advanced technology. The technology in use puts certain limitations on the product structure and the quantity and quality of products. In some cases the level of technology in use is beyond the educational level of the work force, which leads to reduced utilization of assets.

#### Increasing Losses

We must acknowledge rapid development in the area of education and technical training, but we must also pay attention to the facts mentioned. Certain experiences suggest that the workers real knowledge and accumulated experience of manual workers and their resulting productive capacities are lower than one would expect on the basis of data indicating expansion of education and technical training. These experiences provide another proof that young skilled workers with a high school diploma are easily "convertible;" graduates of vocational institutes are relatively more difficult to "convert," while conversion of so-called in-house skilled workers and graduates of courses at the workplace is the hardest.

Thus, there are many who lack the fundamental prerequisites for acquiring more advanced skills. For them, technological shifts and manpower redistribution mean difficult conflicts. Our problems and losses due to structural reorganization are expected to become more acute because, on the one hand, the national economy has too many specially trained workers with a low level of general education who are hardly capable of redirection and retraining. On the other hand, unfortunately only a narrow group of skilled workers has the wherewithal to enable them to satisfy the new requirements.

These facts mean that the leadership and personnel in labor management must face up to new and unusual tasks, one that can be solved only on the basis of thorough analysis and a great deal of technical competence.

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PERSONAL INCOMES IN FIRST QUARTER OF 1980

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 15 Aug 80 p 2

[Article by M. Urosevic: "Foundation for Renewed Growth of Real Personal Incomes"]

[Text] In a recent conversation with newsmen of TANJUG Veselin Djuranovic, chairman of the Federal Executive Council, issued the assessment that incomes policy is in conformity with the demands of stabilization policy, but that everything will have to be done to shorten the time of the real drop of personal incomes. This provided an occasion for us to compare figures on the trend of production, hiring, productivity and personal incomes.

In the first 4 months of this year the physical volume of industrial production rose 5.5 percent over the same months of last year, and employment rose 3.1 percent, which means that labor productivity rose 1.6 percent.

Over that same period retail prices, which are used to measure the rate of inflation, rose 26.2 percent and the cost of living 26.5 percent more than in the same months of last year. Nominal personal incomes of employed Yugoslavs increased 17 percent, and the difference between this increase and the rise of the cost of living, which amounts to 9.5 percent, signifies a real drop of personal incomes.

However, it would be wrong to conclude that the burden of the drop of real personal incomes is being equally borne by all employees in all workplaces. It is true that this year the statisticians are late with reports on personal incomes by industries according to the Uniform Classification of Activities and are publishing figures on the principal economic activities--which is considerably more restricted and one-sided--but it is still sufficient to indicate essential characteristics.

Thus, personal incomes in economic activities are lagging 3 percent behind the Yugoslav average, and those of employees in industry and mining, where more than two-fifths of the social product is created, are lagging 5.6 percent behind. The situation in economic activities would have been still less favorable on the average if 2 years ago those employed in the activity

entitled "financial and other services" had not been "shifted" from noneconomic activities to the economy. This transfer consisted of 193,000 employees with personal incomes averaging 30.6 percent above the Yugoslav average.

Employees in noneconomic activities had personal incomes in the first 4 months of this year 15.8 percent higher than the average for the entire country, and those in sociopolitical communities and organizations were 20.8 percent better off.

The level of personal incomes varies from one sociopolitical community to another. The personal incomes of employees in Slovenia were 22.1 percent better than the Yugoslav average, and those of employees in Croatia 7.5 percent higher. In Serbia proper the lag behind the Yugoslav average was 4.8 percent, but we must bear in mind that these figures also include the personal incomes of those employed in federal agencies and sociopolitical institutions and organizations at the level of Yugoslavia, which considerably boosts the average. Personal incomes in Vojvodina lagged 5.7 percent behind the Yugoslav average, those in Bosnia-Hercegovina 9.1 percent, Montenegro 10.1 percent, Macedonia 17.7 percent and Kosovo 20.4 percent.

In addition to these figures, it would be worthwhile if we also had figures on payments per worker from the social service funds of organizations of associated labor.

It is obvious, then, that in the coming period conditions need to be created by raising productivity and output for personal incomes to begin a new real growth.

[Box]

According to the final figures, the average net monthly personal income of employees in the period January-April of this year amounted to 6,636 dinars: 6,436 in economic activities and 7,682 dinars in noneconomic activities.

The ranking of principal activities is as follows:

1. Financial and other services	8,667
2. Sociopolitical communities and organizations	8,013
3. Education and culture	7,798
4. Health and social welfare	7,288
5. Transportation and communications	7,102
6. Crafts and trades	6,998
7. Housing and municipal services and utilities	6,582
8. Water management	6,581
9. Trade	6,518
10. Industry and mining	6,265
11. Construction	6,221
12. Timber and lumber	6,760
13. Agriculture and fishing	5,760
14. Hostelry and tourism	5,569

YUGOSLAVIA

FOREIGN TRADE IN AGROINDUSTRIAL SECTOR, FIRST HALF OF 1980

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 15 Aug 80 p

[Article by Milorad Urosevic: "Appreciably Smaller Deficit"]

[Text] The change in the dinar's rate of exchange should objectively stimulate exports and at the same time activate disincentive on imports, while at the same time fulfilling the main condition that sufficient goods be produced primarily to satisfy domestic needs and then also for export at competitive prices. At a time when food is joining petroleum as a commodity in ever greater demand in international trade, this change should also speed up exports of raw and processed foods from Yugoslavia; that is, it should make it possible to continue the favorable trends from the second quarter, when the deficit in the first 3 months was reduced. All of this provided there is enough food to meet domestic needs as well as the higher consumption at the height of the tourist season, which as matters now stand is in doubt.

Actually, imports increased even before devaluation of the dinar: thanks to the sudden jump of sugar prices on the world market, which took away the worries of domestic sugar mills and made it possible for them to sell inventories at very favorable prices, the agroindustrial complex appreciably improved its 6-month trade balance, as can be seen from the figures below.

January-June Period, in millions of dinars

<u>Activity</u>	<u>Exports</u>	<u>Imports</u>	<u>Difference</u>
1979			
Food processing industry	3,767	3,134	+ 633
Beverages industry	541	61	+ 480
Livestock feed industry	25	83	- 58
Tobacco manufacturing	31	3	+ 28
Field cropping	1,191	5,645	-4,454
Fruitgrowing	56	4,137	-4,081

Table (continued)

Activity	Exports	Imports	Difference
Viticulture	4	14	- 10
Livestock raising	1,147	1,022	+ 125
Fishery	<u>136</u>	<u>224</u>	<u>- 88</u>
<b>Total</b>	<b>6,898</b>	<b>14,323</b>	<b>-7,425</b>
Coverage of imports by exports, %		48.2	
		1980	
Food processing industry	5,678	3,575	+2,103
Beverages industry	685	101	+ 584
Livestock feed industry	28	58	- 30
Tobacco manufacturing	87	2	+ 85
Field cropping	1,997	6,221	-4,224
Fruitgrowing	35	3,814	-3,779
Viticulture	12	22	- 10
Livestock raising	1,227	1,098	+ 129
Fishery	<u>117</u>	<u>222</u>	<u>- 105</u>
<b>Total</b>	<b>9,866</b>	<b>15,113</b>	<b>-5,247</b>
Coverage of imports by exports, %		70.7	

Results of this kind for the first 6 months are very encouraging, providing favorable opportunities are maintained for the agroindustrial complex to continue the tendency of exports to increase more rapidly than imports. We should remember that the coverage of this complex's imports by exports in the first 3 months of this year was only 51.6 percent, as against 50.6 percent in the same months of last year; and also that in the first half of this year the coverage of the entire economy's imports by exports was 55.8 percent and that of the agroindustrial complex (as is evident from the table) 70.7 percent, but it is no sure thing at all that this trend will continue.

There are several reasons for this view of the situation. It is well known, for instance, that this year's harvest of 511,000 cars of wheat (last year only 447,000 cars) is not sufficient to replenish commodity reserves and meet the public's needs this year, so that imports are inevitable once again. Which will drain off considerable foreign exchange. Then there follows the recent decision allowing supplemental import of 10,000 tons of meat, mostly pork, after the import of 35,000 tons of beef had already been allowed, and the decision to halt exports until this September, which will reduce the inflow and increase the outflow of foreign exchange to import food. To this we should also add the shortfall in the planting of corn, sugar beets and sunflowers because of bad weather and also reduce fattening of livestock. On the other hand there are the ever greater needs for food,

so that the amount lacking from domestic sources will have to be obtained through purchases on foreign markets.

When all these circumstances are borne in mind, it is difficult to believe that the agroindustrial complex will continue to have the favorable trends in its commodity trade with foreign countries in the second half of this year. It would be good if this disbelief proved unfounded, but time will tell.

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OFFICIAL DISCUSSES ECONOMIC STATUS OF CROATIA

Belgrade KOMUNIST in Serbo-Croatian 5 Sep 80 p 7

[Interview with vice chairman of the Executive Council of the Croatian Assembly Dr Ivan Mecanovic, by Viktor Strkalj: "Still Fiercer Battle and Greater Responsibility"; date and place not given]

[Text] [Question] The balance sheet of the Croatian economy for the first 6 months, in spite of a whole series of difficulties, indicates qualitative changes: exports are growing steadily, the payments deficit is decreasing, and the trend of imports has been halted. The difficulties, of course, have still not been overcome, especially those that come with losses in the economy, and also the decline in the rate of industrial output. There are also the problems on the broad capital investment front, where nearly 6,000 projects are under construction. How do you assess the present moment in the Croatian economy?

[Answer] Developments in the Croatian economy show that the process of stabilization is under way. If we examine what the 6-month account furnishes us, we see, among other things, that behavior has changed in organizations of associated labor, manifested by the most tangible result of a real drop of personal incomes. This is only one of the measures of stabilization, and it seems that it was the easiest to achieve. But now the question is this: Where do we go from here in this area?

Other agreed effects of stabilization have also begun to show up. Regardless of what is happening in production and regardless of how we define these developments, it is our assessment that the social product will show a growth of somewhere above 2 percent. Industrial output is showing a definite tendency to increase, which, however, should not deceive us, especially when we know that the growth rate was quite low in the 7th month of last year. The problems are mainly concentrated in machinebuilding, whose output is about 7 percent smaller than last year, and in shipbuilding, where the drop is 17 percent. We are experiencing something similar in petroleum production and refining, but this is a part of the strategy of consuming less. This means that production in other industries is more or less better than in previous years in spite of the fact that the problem of

substitution of imported raw materials by domestic raw materials is becoming more and more acute.

#### Losses

In the domain of distribution, as I have already said, there is the significant item of a reduction of personal incomes, which has had the result that funds for expansion of the material base of operation are growing faster than in previous periods by all of about 40 percent. However, an item we must be particularly concerned about is losses in economic activity, which in the amount of 5.8 billion dinars constitute almost one-third of total losses in the Yugoslav economy. It seems to us, nevertheless, that we can correct this, since a sizable portion of the losses are seasonal in nature, as is the case with the loss of about 1.7 billion dinars in hostelry and tourism. However, particular attention and analysis should also be concentrated on the losses arising in petroleum refineries and the production of nonferrous metals. By all appearances the devaluation will result in a "reallocation" of the losses, and we expect that they will remain at the present level up to the end of the year.

It is difficult at this point to provide a precise judgment of what is happening on the investment front, but it is significant that certain of the largest projects such as the Ivanja Reka--Lipovljani highway, the bridges on Krk and at Bogojevo, are already completed.

#### Incomes

[Question] Can we, then, speak of an optimistic autumn start?

[Answer] What is meant by optimism is a big question. It is a fact that economic difficulties do exist, but at the same time we are today much better organized than we were, say, 3 months ago. In other words, the situation is not such that there is no way out, but at the same time we must take a number of factors into account. Social welfare policy first of all. We feel, for example, that it is a good thing that there has been stabilization in the domain of personal incomes, but we also feel that at the present moment we must see whether this can be taken any further, especially in the case of workers with low income. It is obvious that stabilization is transferring the burden from the economy to a portion of social welfare policy, and this obliges us to very quickly put trends in the domain of personal incomes and the tax system on the agenda. In the conduct of social welfare policy we must, of course, show very great responsiveness. That is, it often happens that an individual with a monthly income of 1 million old dinars is in a much more difficult welfare situation than the man with the lowest income who, however, has 3 hectares of land in the suburbs of Zagreb, Rijeka or Split.

[Question] It is in this context that the datum that wages and salaries constitute only 35 percent of personal income is often referred to in public and even from the benches of the assembly. Is this datum correct?

[Answer] It is not, since, for example, it does not take into it the fact that in Croatia there are about 1.2 million people living on pensions. We might speak about a 50:50 ratio. Though even pensions show the false picture, it is obvious that we must examine very precisely what a "half-and-half" ratio means. I feel, for example, that this jeopardizes labor productivity, which is very unwise. After all, over the last 10 years labor productivity has stayed at the same level, while over that same period we have considerably modernized the capacities of the economy. So, a much improved technology has not resulted in higher labor productivity, it has not led to the introduction of a second, third and some places even fourth shift. On the one hand this is a negative result, but on the other it is the position from which we can make a rapid start; that is, it gives us an opportunity to operate more efficiently. However, we must also be aware of the fact that in certain of our economic steps we are "encouraging" this 50:50 ratio. It is clear that we cannot overcome work "u fusu" unless we strengthen small business even in a situation when it is not possible or society is unwilling to tax it. It must also be clear to us that we have a large number of people working in the public sector who are earning an additional portion of their income as farmers or by rendering tourist services. For certain categories, it is true, this may even be a welfare corrective, but it is beyond all doubt that it puts the "pure" worker in an unequal position, so that often his welfare really is in jeopardy even though he has a relatively high personal income. This means that when we speak about wages and salaries, we dare not equate different things, just as we dare not oppose high personal incomes if they represent work performance. We must, however, conduct a policy which will have the result that employees with high earnings will also make larger social contributions.

#### Investment Projects

[Question] You mention that there has been a change of behavior in organisations of associated labor. Does this mean instead of crash efforts to overcome the consequences they have begun to correct the causes of present economic difficulties, including "assignment" of responsibility for the losses which have occurred, for bad investments, and so on?

[Answer] Of course the entire effort, especially the most recent measures of the assembly concerning further activities to achieve economic stabilisation in Croatia, has been aimed at correcting the causes, which are both complex and manifold. When we speak about investment projects, for example, we must say that the technobureaucratic influence is still strong in this area, but there are also a number of economic reasons for the present breadth of the investment fund in that about 6,000 projects are under construction. For example, anyone who saved money at the very high rate of investments ("inflation" is presumably meant) turns out actually to have been a "poor businessman," while he who spent anticipated earnings has brought it about that even the most foolish investment project has become intelligent after a time, since inflation has in effect made it cheap. However, since miracles cannot be worked in this way, society as a whole is

paying for this appearance of sensible behavior. So, it is a question of a change of behavior throughout the system, and not only in certain of its aspects. Our point of departure should be the fact that we have not altogether managed to achieve the goals we have proclaimed. That is why we cannot escape responsibility by saying, as many do, that "the system is no good," but we must implement it consistently. Consequently, we face a still fiercer battle to put the system in effect and to achieve still greater responsibility in that context.

As for personal responsibility, it would be an illusion to suppose we can solve our problems by naming 10 or 15 individuals, if at the same time we do not correct the causes. This does not, of course, mean that we should not accentuate personal responsibility, especially since we have specific motives for this. For example, in the recent "smothering" of the Ivanja Reka-Lipovljani highway, many republic agencies became involved, but not the Croatian SIZ (self-managed special-interest community) for Highways, which bore the greatest responsibility. Though perhaps this is a trivial example, it is a prototype of what we are experiencing in practice.

#### Responsibility

[Question] A specific question on the topic of responsibility. How should we interpret the fact that in recent years new plants or plants which have undergone reconstruction are among those with losses? In a recent session of the assembly the figure was presented that 34 organizations of associated labor whose plants have been put into operation in the last 3 years recorded losses amounting to 1.84 billion dinars, which represent 37 percent of total losses.

[Answer] One of the most important factors is certainly that we adopt very short payoff periods for investment projects, so that in the first years there are large repayments of principal and high interest on short-term credit, which in itself is not good. At the same time, we often harbor the illusion that we can build a factory in the middle of nowhere and that it can immediately begin to operate. It is precisely these projects of ours which are "producing" losses, by contrast with those built by work organizations with a certain experience. Of course, it is not merely a question of experience in production proper, but also of experience in marketing, sales, and so on.

Another reason for the losses lies in failure to take into account momentary or long-term developments on the world market. A typical example of this is the Jadral Alumina Plant in Obrovac, which, in my opinion, could be an exceptional producer in 6 or 7 years. At present they are paying for the fact that it was built and put into production at a time when the price of aluminum was low on the world market and even lower on the domestic market.

[Question] If you recall, there was a very stormy debate in the Croatian Assembly about Jadral as a major source of losses, and the possibility of "mothballing" it has been mentioned more than rarely. The situation as you put it is not so "black" as it is frequently portrayed.

[Answer] There is a tendency today that indicates that aluminum will be increasingly expensive. And also, this is perhaps the only product which is cheaper on the domestic market than on the world market. It is obvious, then, that a rise in the price of aluminum would make it profitable to undertake not only surface, but even underground mining. But another problem is that we must undertake the higher phases of manufacturing aluminum, which yield 20 or even 30 percent larger incomes than at present. I do not say that this can be done without upheavals; indeed there will be quite a few more problems in the aluminum complex, but, in my personal opinion, Jadral could become a relatively successful factory in the future.

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